Priority #5

Access DB# 137280

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 11-4-04
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: ~~10/773,930~~
Mail Box and Bldg/Room Location: 9D60 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need. 10/773930

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

bib & clm for this case attached

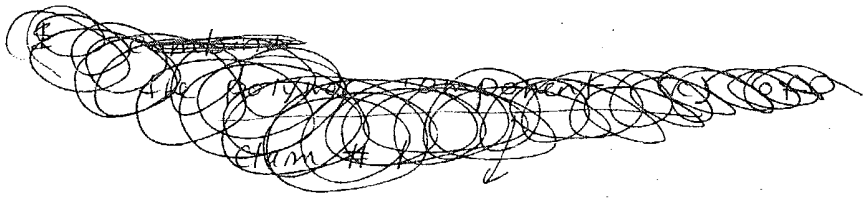
Title of Invention: Please see attached B.b.

Inventors (please provide full names):

Earliest Priority Filing Date:

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please Search for the combination of component (b) of claim # 1



and a photo acid generator (component (a) of claim #1)

****

STAFF USE ONLY

Searcher: K Fuller
Searcher Phone #:
Searcher Location:
Date Searcher Picked Up:
Date Completed: 11/15/04
Searcher Prep & Review Time: 20
Clerical Prep Time:
Online Time: 60

PTO-1590 (8-01) subset

Type of Search

NA Sequence (#)
AA Sequence (#)
Structure (#) 2
Bibliographic
Litigation
Fulltext
Patent Family
Other

Vendors and cost where applicable

STN
Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

=> FILE REG
FILE 'REGISTRY' ENTERED AT 11:33:13 ON 15 NOV 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 NOV 2004 HIGHEST RN 780728-63-4
DICTIONARY FILE UPDATES: 14 NOV 2004 HIGHEST RN 780728-63-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

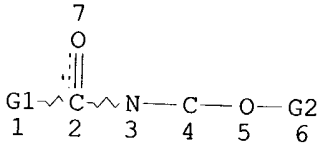
Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> FILE HCAPLUS
FILE 'HCAPLUS' ENTERED AT 11:33:18 ON 15 NOV 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 15 Nov 2004 VOL 141 ISS 21
FILE LAST UPDATED: 14 Nov 2004 (20041114/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE
L3 STR



VAR G1=H/AK/CB
VAR G2=AK/H

21,656 compounds from query covering Claim 1 b

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE
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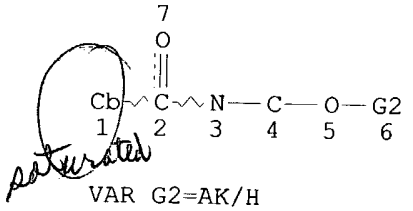
L40 STR



saturated

Subset search for specific compounds of claim 3

100 compounds

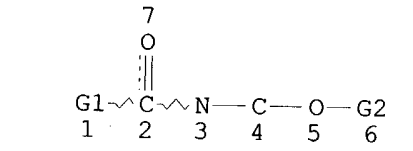
VAR G2=AK/H
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 1
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE
L42 100 SEA FILE=REGISTRY SUB=L5 SSS FUL L40
L43 74 SEA FILE=HCAPLUS ABB=ON L42
L44 0 SEA FILE=HCAPLUS ABB=ON L43 AND ACID?(3A)?GENERAT?
L45 0 SEA FILE=HCAPLUS ABB=ON L43 AND PHOTORESIST?
L47 0 SEA FILE=HCAPLUS ABB=ON (L44 OR L45)

no CA references from these compounds and utility.

=> => D QUE L14
L3 STR



Broad search and utility

16

VAR G1=H/AK/CB
VAR G2=AK/H
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE
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L7 24200 SEA FILE=HCAPLUS ABB=ON ACID?(3A)?GENERAT?
L10 298810 SEA FILE=REGISTRY ABB=ON PACR/PCT

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

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L11        6842 SEA FILE=REGISTRY ABB=ON  L5 AND L10
L12       14814 SEA FILE=REGISTRY ABB=ON  L5 NOT L11
L13       13261 SEA FILE=HCAPLUS ABB=ON  L12
L14          22 SEA FILE=HCAPLUS ABB=ON  L7 AND L13

=> D L14 BIB ABS IND HITSTR 1-22

L14  ANSWER 1 OF 22  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:333704  HCAPLUS
DN   140:339631
TI   Preparation of amino acid thiazolylamides for treatment of
     neurodegenerative disorders
IN   Chen, Yuhpyng Liang; Corman, Michael Leon
PA   Pfizer Products Inc., USA
SO   PCT Int. Appl., 117 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.          DATE
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PI   WO 2004033439       A1     20040422    WO 2003-IB4330           20030929
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
            PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
            TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,
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         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
            CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
            NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
            GW, ML, MR, NE, SN, TD, TG
     US 2004152747       A1     20040805    US 2003-682686           20031008
     NL 1024499          A1     20040413    NL 2003-1024499          20031009
PRAI US 2002-417400P     P      20021009
     US 2003-463209      A      20030617
OS   MARPAT 140:339631
GI
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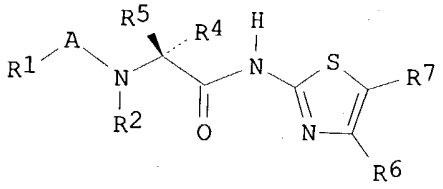

I

AB The invention provides compds. I [A is COCO, carbonylimino, C(O)Z, C(S)Z, C(:NR5)Z, or SO2, where Z is CH2, CH(OH), acyloxymethylene, CH(CH2OH), etc. and R5 is (un)substituted alkyl or aryl; R1 is alkyl, alkoxy, cycloalk(en)yl, bi- or tricycloalkyl, heterocycloalkyl, (hetero)aryl, etc.; R2 is H, (un)substituted alkyl which may be unsatd., alkanoyl, aryl- or arylmethylsulfonyl; R3 is (un)substituted alk(en)(yn)yl or cycloalk(en)ylalkyl; R4 is H, D, F or alkyl; R3 and R4 may form a ring;

R6, R7, R8 are H, alkyl, halo, CN, etc. or R6 and R7 may form rings] which inhibit the production of Aβ-peptide and pharmaceutical compns. for treating diseases, e.g., Alzheimer's disease. Thus, I (R1-A = 3,5-F2C6H3CH2CO; R2, R4, R6 = H, R3 = Et, R7 = 5-bromo-2-thienyl) was prepared and had IC50 ≈ 5 micromolar for inhibition of γ-secretase.

IC ICM C07D277-46
ICS C07D277-56; C07D277-54; C07D277-82; C07D277-60; C07D417-04; C07D417-06; C07D417-12; A61K031-425; A61K031-4439; A61K031-454; A61P025-28

CC 34-2 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1, 28, 63

ST amino **acid** thiazolylamide prepn treatment **neurodegenerative** disorder

IT Brain, disease
(amyloid angiopathy; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Nervous system, disease
(**degeneration**; preparation of amino **acid** thiazolylamides for treatment of neurodegenerative disorders)

IT Mental disorder
(dementia; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Mental disorder
(depression, antidepressant agents; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Sleep
(disorder, agents; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Memory, biological
(enhancement agents; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Brain, disease
(hemorrhage, hereditary; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Muscle, disease
(inclusion body myositis; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Alzheimer's disease
Amyloidosis
Anti-Alzheimer's agents
Anti-inflammatory agents
Antidepressants
Antihypertensives
Antioxidants
Antipsychotics
Anxiolytics
Down's syndrome
(preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Amino acids, preparation
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Prion proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prion-mediated disease; preparation of amino acid thiazolylamides for

treatment of neurodegenerative disorders)

IT Brain, disease
(stroke; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT Amyloid
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β-; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT 57-88-5, Cholesterol, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modulating agent; preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT 338454-52-7, γ Secretase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT 107-10-8, 1 Propylamine, reactions 1003-61-8, 2 Amino 5 thiazolecarboxaldehyde 7305-71-7, 2 Amino 5 methylthiazole 30748-47-1
53159-71-0 53308-95-5 681143-30-6 681143-31-7 681143-32-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

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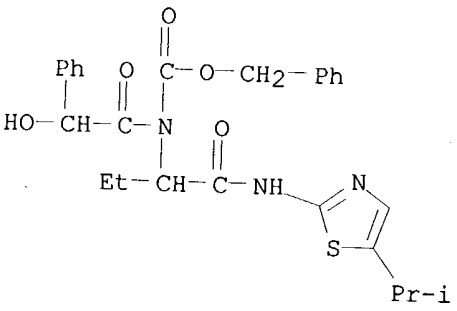
681143-11-3P 681143-12-4P 681143-13-5P 681143-14-6P 681143-15-7P
681143-16-8P 681143-17-9P 681143-18-0P 681143-19-1P 681143-20-4P
681143-21-5P 681143-22-6P 681143-23-7P 681143-24-8P 681143-25-9P
681143-26-0P 681143-27-1P 681143-28-2P 681143-29-3P 681146-10-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

IT **681141-46-8P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino acid thiazolylamides for treatment of neurodegenerative disorders)

RN 681141-46-8 HCAPLUS
CN Carbamic acid, (hydroxyphenylacetyl)[1-[[[5-(1-methylethyl)-2-thiazolyl]amino]carbonyl]propyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:853314 HCAPLUS
DN 139:343479
TI Sulfonium compounds as radiation-sensitive **acid generators** and resist compositions containing them
IN Kodama, Kunihiko
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 66 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003307839	A2	20031031	JP 2002-112372	20020415
PRAI	JP 2002-112372		20020415		

OS MARPAT 139:343479
AB (Ba)mAaS+Y1Y2 X- (I; Y1, Y2 = alkyl, aryl, aralkyl, heterocyclyl,

oxoalkyl, oxoaralkyl; Y1 and Y2 may be bonded together to form a ring; Aa = direct bond, organic group; Ba = group having CONRa or SO2NRa; Ra = H, alkyl; m = 1-3; X- = nonnucleophilic anion), which **generate acids** upon irradiation with actinic ray or radiation, are claimed. Also claimed are resist compns. containing I, pos.-working resist compns. containing I and resins which are decomposed by acids to show increased solubility to an alkaline developer, neg.-working resist compns. containing I, water-insol. alkali-soluble resins, and crosslinking agents which crosslink to the alkali-soluble resins by acids, etc. The resist compns. containing I show high sensitivity, resolution, and good profile, and are especially suitable for irradiation with far-UV and electron beam.

IC ICM G03F007-004
ICS C07C381-12; C08F012-14; C08F220-18; C08F220-26; C08F232-04; C09K003-00; G03F007-038; G03F007-039; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST amide linkage contg sulfonium salt photoacid generator resist; sulfonamide linkage contg sulfonium salt photoacid generator resist

IT Resists
(neg.-working; preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT Resists
(pos.-working; preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT Resists
(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT 141-07-1 3089-11-0 4356-60-9 17464-88-9 161679-94-3 162846-57-3 162846-59-5 185502-14-1
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinking agent; preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT 153698-63-6 153698-65-8
RL: TEM (Technical or engineered material use); USES (Uses)
(dissoln. inhibitor; preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT 617692-21-4 617692-22-5 617692-23-6 617692-24-7 617692-25-8 617692-26-9 617692-27-0 617692-29-2 617692-31-6 617692-33-8 617692-34-9 617692-36-1 **617692-38-3** 617692-40-7 617692-42-9 617692-44-1 617692-46-3 617692-47-4 617692-49-6 617692-51-0 617692-53-2 617692-55-4 617692-57-6
RL: CAT (Catalyst use); USES (Uses)
(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT 617692-19-0P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT 110-01-0, Tetrahydrothiophene 110-89-4, Piperidine, reactions

14104-20-2, Silver tetrafluoroborate 29420-49-3, Potassium nonafluorobutanesulfonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT 1440-60-4P, N-Chloroacetylpiperidine 617692-18-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT 109-92-2DP, Ethyl vinyl ether, reaction products with poly(hydroxystyrene) 129674-22-2P 143336-94-1P 159296-87-4P 177034-73-0P 177034-75-2P 199432-82-1P 200808-68-0P 228101-60-8P 250378-10-0P, Butyrolactone methacrylate-2-ethyl-2-adamantyl methacrylate copolymer 288620-13-3P 288620-15-5P 289623-64-9P 289706-85-0P 312620-54-5P 325143-38-2P 326591-96-2P 359635-35-1P 366808-82-4P 370866-39-0P 372968-15-5P 391232-36-3P 398140-38-0P 398140-43-7P 398140-45-9P 398140-57-3P 398140-59-5P 398140-68-6P 398140-69-7P 398140-77-7P 398140-80-2P 405509-19-5P 406702-00-9P 430437-18-6P 459418-30-5P 482609-97-2P 503003-65-4P 508210-04-6P 521303-15-1P 521303-16-2P 524699-47-6P 574735-94-7P 594855-58-0P 607710-65-6P 607710-66-7P 607710-67-8P 607710-68-9P 607710-69-0P 607710-70-3P 607710-71-4P 607710-72-5P 607710-73-6P 607710-76-9P 607710-77-0P 610300-92-0P 610300-96-4P 610300-97-5P 610300-98-6P 610301-00-3P 610301-01-4P 610301-03-6P 610301-04-7P 610301-05-8P 615278-35-8P 617692-20-3P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT 24979-69-9 185405-14-5 321164-59-4 345212-27-3
RL: TEM (Technical or engineered material use); USES (Uses)
(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

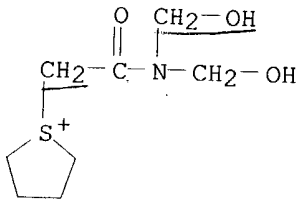
IT 24979-70-2P, VP 15000
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reaction products with Et vinyl ether; preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

IT **617692-38-3**
RL: CAT (Catalyst use); USES (Uses)
(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive **acid generators** and resist compns. containing them)

RN 617692-38-3 HCAPLUS
CN Thiophenium, 1-[2-[bis(hydroxymethyl)amino]-2-oxoethyl]tetrahydro-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 617692-37-2
CMF C8 H16 N O3 S



CM 2

CRN 45187-15-3
CMF C4 F9 O3 S

$^{-}O_3S-(CF_2)_3-CF_3$

L14 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:626289 HCAPLUS
DN 140:370171
TI Development of the Piezoelectric Biosensor for Acetochlor Detection
AU Lebedev, Mikhail Yu.; Eremin, Sergei A.; Skladal, Petr
CS Faculty of Chemistry, Department of Chemical Enzymology, Moscow State University, Moscow, Russia
SO Analytical Letters (2003), 36(11), 2443-2457
CODEN: ANALBP; ISSN: 0003-2719
PB Marcel Dekker, Inc.
DT Journal
LA English
AB The piezoelec. immunosensor for the determination of acetochlor was developed. The surface of gold electrodes of piezoelec. quartz crystals was modified by self-assembled thiolayers using either 4-aminothiophenol or dithiobis(succinimidyl propionate). In the next step, the modified surface was used for the coupling of acetochlor-protein conjugates. Acetochlor was conjugated to ovalbumin using either thiopropionic acid or acetylthiosuccinimidyl anhydride (AMSA). The acetochlor-modified crystals were used for characterization of the anti-acetochlor polyclonal antibody (Ab). The kinetic rate and equilibrium consts. were compared for both types of immobilization. For acetochlor immobilized through AMSA, the dissociation rate constant was 20-times lower. The possibility of using this system for the competitive determination of free acetochlor in water was further studied. The detection limit (10% decrease of relative binding of the antibody) was 0.20 μg/L. The piezoelec. crystals were used repeatedly, 100 mM formic **acid** served for **regeneration** of the sensing surface. The total time for one measurement was about 30 min including 15 min pre-incubation of antibody with sample, 10 min binding reaction and 4 min regeneration.
CC 5-1 (Agrochemical Bioregulators)
ST piezoelec immunosensor acetochlor detection; electrode acetochlor detection
IT Antibodies and Immunoglobulins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(anti-acetochlor, competitive binding with acetochlor; development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)
IT Ovalbumin

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(conjugates, with acetochlor; development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

IT Immobilization, molecular or cellular
Piezoelectric materials
(development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

IT Biosensors
(immunosensors, piezoelec.; development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

IT Electrodes
(piezoelec.; development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

IT **34256-82-1**, Acetochlor
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

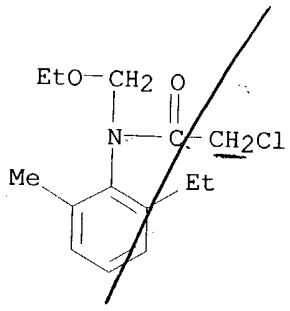
IT **34256-82-1DP**, Acetochlor, ovalbumin conjugates
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

IT 1892-31-5, Thiopropionic acid 6953-60-2
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

IT 1193-02-8, 4-Aminothiophenol 57757-57-0
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(self-assembled thiolayer; development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

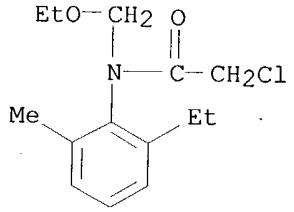
IT **34256-82-1**, Acetochlor
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)

RN 34256-82-1 HCAPLUS
CN Acetamide, 2-chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)- (9CI) (CA INDEX NAME)



IT **34256-82-1DP**, Acetochlor, ovalbumin conjugates
RL: DEV (Device component use); PEP (Physical, engineering or chemical

process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(development of piezoelec. immunosensor for acetochlor detection using immobilized ovalbumin-acetochlor conjugates)
RN 34256-82-1 HCAPLUS
CN Acetamide, 2-chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)- (9CI) (CA INDEX NAME)



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:635679 HCAPLUS
DN 137:315466
TI Nucleophilic Aliphatic Substitution Reactions of Propachlor, Alachlor, and Metolachlor with Bisulfide (HS-) and Polysulfides (Sn2-)
AU Loch, A. R.; Lippa, K. A.; Carlson, D. L.; Chin, Y. P.; Traina, S. J.; Roberts, A. L.
CS Department of Geography and Environmental Engineering, Johns Hopkins University, Baltimore, MD, 21218-2686, USA
SO Environmental Science and Technology (2002), 36(19), 4065-4073
CODEN: ESTHAG; ISSN: 0013-936X
PB American Chemical Society
DT Journal
LA English
AB Reactions of bisulfide and polysulfides with alachlor, propachlor, and metolachlor were examined in aqueous solution to investigate the role reduced sulfur species could play in effecting abiotic transformations of chloroacetanilide herbicides. Expts. at 25° demonstrated that reactions were approx. first-order in HS- concentration and revealed that polysulfides are considerably more reactive than HS-. ΔH.thermod. values for reactions of the three chloroacetanilides with HS- are statistically indistinguishable at the 95% confidence level, as are ΔS.thermod. values, despite significant differences in second-order rate consts. (kHS-). Transformation products were characterized by gas chromatog./mass spectrometry (GC/MS) (in some cases following methylation) and were found to be consistent with substitution of chlorine by the sulfur nucleophile. Products containing multiple sulfur atoms were observed for the reactions of chloroacetanilides with polysulfides, while products resulting from reaction with HS- only possessed a single sulfur atom. When second-order rate consts. at 25° are multiplied by HS- and polysulfide concns. reported in salt marsh pore waters, predicted half-lives range from minutes to hours. HS- and, especially, polysulfides could thus exert a substantial influence on the fate of chloroacetanilide herbicides in aquatic environments. Oxidation of the resulting sulfur-substituted products could **generate** ethanesulfonic

acid derivs., previously reported as prevalent chloroacetanilide degradates.

CC 61-2 (Water)
Section cross-reference(s): 5, 19, 67

ST chloroacetanilide herbicide aq nucleophilic aliph substitution reaction bisulfide polysulfide; propachlor aq nucleophilic aliph substitution reaction bisulfide polysulfide; alachlor aq nucleophilic aliph substitution reaction bisulfide polysulfide; metolachlor aq nucleophilic aliph substitution reaction bisulfide polysulfide

IT Herbicides
(chloroacetanilide; nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT Sulfides, processes
RL: CPS (Chemical process); GPR (Geological or astronomical process); PEP (Physical, engineering or chemical process); PROC (Process)
(hydrosulfides; nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT Marshes
Soils
(hypoxic sulfidic; nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT Waters
(interstitial; nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT Water pollution
(nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT Polysulfides
RL: CPS (Chemical process); GPR (Geological or astronomical process); PEP (Physical, engineering or chemical process); PROC (Process)
(nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT Soil pollution
(nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides in relation to)

IT Substitution reaction kinetics
(nucleophilic; nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT Aquatic sediments
Groundwaters
(pore water; nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides in)

IT Marshes
(salt, hypoxic sulfidic; nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT 80817-84-1 120375-15-7 **226917-44-8**
RL: FMU (Formation, unclassified); POL (Pollutant); FORM (Formation, nonpreparative); OCCU (Occurrence)
(formation of; in nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

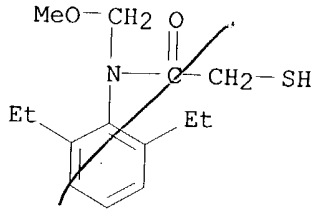
IT 15035-72-0, Bisulfide
RL: CPS (Chemical process); GPR (Geological or astronomical process); PEP (Physical, engineering or chemical process); PROC (Process)
(nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

IT 1918-16-7, Acetamide, 2-chloro-N-(1-methylethyl)-N-phenyl-

15972-60-8, Acetamide, 2-chloro-N-(2,6-diethylphenyl)-N-(methoxymethyl)- 51218-45-2, Acetamide, 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)-
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); POL (Pollutant); OCCU (Occurrence); PROC (Process)
(nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

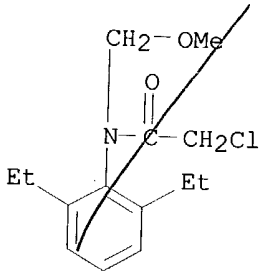
IT **226917-44-8**
RL: FMU (Formation, unclassified); POL (Pollutant); FORM (Formation, nonpreparative); OCCU (Occurrence)
(formation of; in nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

RN 226917-44-8 HCAPLUS
CN Acetamide, N-(2,6-diethylphenyl)-2-mercapto-N-(methoxymethyl)- (9CI) (CA INDEX NAME)



IT **15972-60-8**, Acetamide, 2-chloro-N-(2,6-diethylphenyl)-N-(methoxymethyl)-
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); POL (Pollutant); OCCU (Occurrence); PROC (Process)
(nucleophilic aliphatic substitution reactions of aqueous propachlor, alachlor, and metolachlor with bisulfide and polysulfides)

RN 15972-60-8 HCAPLUS
CN Acetamide, 2-chloro-N-(2,6-diethylphenyl)-N-(methoxymethyl)- (9CI) (CA INDEX NAME)



RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:369035 HCAPLUS
DN 136:381385
TI Test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops
IN Stemmer, Willem P. C.
PA Maxygen, Inc., USA

SO U.S. Pat. Appl. Publ., 28 pp., Cont.-in-part of U.S. Ser. No. 373,333.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002059659	A1	20020516	US 2001-32647	20011029
	US 2002058249	A1	20020516	US 1999-373333	19990812
PRAI	US 1998-96288P	P	19980812		
	US 1998-111146P	P	19981207		
	US 1998-112746P	P	19981217		
	US 1999-373333	A2	19990812		

AB Methods of shuffling DNA to obtain recombinant herbicide tolerance nucleic acids encoding proteins having new or improved herbicide tolerance activities, libraries of shuffled herbicide tolerance nucleic acids, transgenic plants and DNA shuffling mixts. are provided. Thus, a parental nucleic acid encoding a herbicide-metabolizing enzyme is obtained and a library of variant forms is obtained by DNA shuffling recombination. The library is screened to identify at least one recombinant herbicide tolerance nucleic acid. The method is exemplified by shuffling of Arabidopsis or tomato 5-enolpyruvoylshikimate 3-phosphate synthase cDNA for glyphosate tolerance in plant AB2829 cells.

IC ICM A01H005-00
ICS C12P019-34; C12N015-87
NCL 800278000
CC 3-2 (Biochemical Genetics)
Section cross-reference(s): 5, 11
ST DNA shuffling herbicide tolerance crop; ESPS synthase DNA shuffling herbicide tolerance
IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(DNA libraries generated by digestion using; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)
IT Herbicides
(bisphosphonate, genes for tolerance of; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)
IT Herbicides
(chloroacetamides, GST and HGST genes for tolerance to; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)
IT Herbicides
(di-Ph ether; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)
IT PCR (polymerase chain reaction)
(gene fragments amplified using; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)
IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene fragments amplified using; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)
IT Crop (plant)
(herbicide resistance of; test kits for DNA shuffling to generate

libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides
(imidazolinone, genes for tolerance of; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Molecular cloning
(of herbicide tolerant genes; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides
(phenoxyacetic acid, genes for tolerance to; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides
(phenylcarbamate; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides
(pyridazinone; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides
(sulfonylurea, genes for tolerance of; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Abutilon theophrasti
Amaranthus
Bromus tectorum
Chenopodium
DNA shuffling
Digitaria
Echinochloa
Embryophyta
Herbicide resistance
Herbicides
Ipomoea
Kochia scoparia
Morning glory
Nucleic acid library
Panicum
Recombination, genetic
Setaria (grass)
Solanum
Sorghum halepense
Test kits
Weed
(test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides
(thiocarbamate, GST and HGST genes for tolerance to; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides
(triazine, GST and HGST genes for tolerance to; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides
(triazinone; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Herbicides

(triazolopyrimidine, ALS for improving resistance to; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT Transcription, genetic
(variants produced by error-prone; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 9003-98-9, DNase I 9026-81-7, Nuclease 9055-11-2, Endonuclease 9075-08-5, Restriction endonuclease
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(DNA libraries generated by digestion using; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 50812-37-8P, Glutathione S-transferase 259819-05-1P, Transferase, homoglutathione S-
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(DNA shuffling for genes encoding; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 9012-90-2
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(Taq, gene fragments amplified using; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 111069-93-3P, Phosphinothricin acetyltransferase
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(bar gene encoding; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 1918-00-9, Dicamba
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(cytochrome P 450 monooxygenase genes in metabolizing; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 9027-45-6P, Acetolactate synthase
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(for herbicide resistance; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 9023-27-2P, UDP-acetylglucosamine enolpyruvyltransferase
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(for herbicide tolerance; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 9012-90-2D, DNA polymerase, Klenow fragment
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(gene fragments amplified using; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 143375-68-2P, Glyphosate oxidoreductase
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(genes for herbicide resistance; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 122836-35-5, Sulfentrazone
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(genes for tolerance of; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 94-75-7, 2,4-Dichlorophenoxyacetic acid, biological studies
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(genes for tolerance to; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 9015-85-4, DNA ligase
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(in DNA shuffling; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 66-22-8, Uracil, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(in DNA template; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 37353-39-2, RNA ligase
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(in RNA shuffling; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 9035-51-2P, Cytochrome P 450 monooxygenase, biological studies
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(in dicamba resistance; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 9068-73-9P, EPSP synthase
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(in glyphosate resistance; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 53986-32-6P, Protoporphyrinogen oxidase
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(in herbicide resistance; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

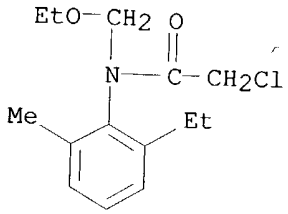
IT 9001-99-4, RNase
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nucleic **acid** libraries **generated** by digestion using; test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 1071-83-6, Glyphosate **34256-82-1**, Acetochlor 51218-45-2, Metolachlor 87674-68-8, Dimethenamid 130607-26-0, Hydantocidin
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT 111310-46-4P, 2,4-Dichlorophenoxyacetate monooxygenase
RL: AGR (Agricultural use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

IT **34256-82-1**, Acetochlor
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(test kits for DNA shuffling to generate libraries for use in screening for genes encoding herbicide tolerance in crops)

RN 34256-82-1 HCAPLUS
CN Acetamide, 2-chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)- (9CI) (CA INDEX NAME)



L14 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:694307 HCAPLUS
DN 133:267636
TI Photopolymer composition for optically casting
IN Anai, Hiroshi
PA Asahi Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000273109	A2	20001003	JP 1999-74418	19990318
PRAI	JP 1999-74418		19990318		

AB Title composition comprises ethylene-type unsatd. bond-containing polymer with mol. weight 800-9000, ethylene-type unsatd. bond containing compound with mol. weight <800, inorg. filler of pH <7.5, radical-generating photopolymn. initiator, leuco dye, and photo-**acid-generating** compound Thus a composition comprising polyurethane methacrylate, 2-hydroxypropyl methacrylate, N-methylolacrylamide, methacrylamide, α-methoxybenzoine Me ether, 2,6-di-t-butyl-p-cresol, 3-butylamino-6-methyl-7-anilinofluorane, triallylsulfonium hexafluorophosphate, and methacryloxysilane-treated whisker aluminum borate, was cured by UV radiation for 10 min., showing Shore hardness 83 degree at 20°, and no decoloration was observed after storing at 40°, 80% humidity for 2 mo.

IC ICM C08F002-46
ICS B29C039-02; C08F290-06; B29K055-00
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38
ST polyurethane methacrylate photopolymn photopolymer compn casting; filler photopolymer compn casting; initiator photopolymn photopolymer compn casting; dye photopolymer compn casting
IT Polyurethanes, preparation
Polyurethanes, preparation
Polyurethanes, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyester-polyoxyalkylene-; preparation of photopolymer composition for optically casting)
IT Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyester-polyurethane-; preparation of photopolymer composition for optically casting)
IT Polyesters, preparation
Polyesters, preparation
Polyesters, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyoxyalkylene-polyurethane-; preparation of photopolymer composition for optically casting)
IT Dyes
Fillers
Stabilizing agents
(composition containing; preparation of photopolymer composition for optically casting)
IT Polymerization
Polymerization catalysts
(photopolymn.; preparation of photopolymer composition for optically casting)
IT Polyurethanes, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyester-, acrylic; preparation of photopolymer composition for optically casting)
IT Casting of polymeric materials
Optical materials
(preparation of photopolymer composition for optically casting)
IT 89331-94-2, 3-Dibutylamino-6-methyl-7-anilinofluoran 125864-21-3, 3-Butylamino-6-methyl-7-anilinofluoran
RL: MOA (Modifier or additive use); USES (Uses)
(dye, composition containing; preparation of photopolymer composition for optically casting)
IT 22642-57-5

RL: NUU (Other use, unclassified); USES (Uses)
(filler treated with; preparation of photopolymer composition for optically casting)

IT 168042-44-2, Alborex YS 4
RL: MOA (Modifier or additive use); USES (Uses)
(methacryloxysilane-treated, whisker, composition containing; preparation of photopolymer composition for optically casting)

IT 94098-91-6, Triallylsulfonium hexafluorophosphate
RL: CAT (Catalyst use); USES (Uses)
(photo-**acid-generating** agent, composition containing; preparation of photopolymer composition for optically casting)

IT 24650-42-8
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; preparation of photopolymer composition for optically casting)

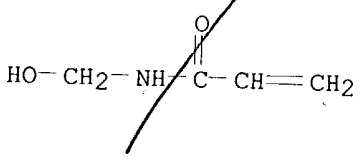
IT 79-39-0DP, Methacrylamide, polymers with polyurethane methacrylate and vinyl monomers 923-26-2DP, 2-Hydroxypropyl methacrylate, polymers with polycaprolactone diol, TDI, and vinyl monomers **924-42-5DP**, N-Methylolacrylamide, polymers with polyurethane methacrylate and vinyl monomers 24980-41-4DP, Polycaprolactone, diol derivs., polymers with TDI, methacrylates and vinyl monomers 25248-42-4DP, Polycaprolactone, sru, diol derivs., polymers with TDI, methacrylates and vinyl monomers 26471-62-5DP, TDI, polymers with polycaprolactone diol, methacrylates and vinyl monomers 186026-82-4P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of photopolymer composition for optically casting)

IT 128-37-0, 2,6-Di-tert-butyl-p-cresol, uses
RL: MOA (Modifier or additive use); USES (Uses)
(stabilizer, composition containing; preparation of photopolymer composition for optically casting)

IT 11121-16-7, Alborex Y
RL: NUU (Other use, unclassified); USES (Uses)
(whiskers, composition containing; preparation of photopolymer composition for optically casting)

IT **924-42-5DP**, N-Methylolacrylamide, polymers with polyurethane methacrylate and vinyl monomers
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of photopolymer composition for optically casting)

RN 924-42-5 HCAPLUS
CN 2-Propenamide, N-(hydroxymethyl)- (9CI) (CA INDEX NAME)



L14 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:417525 HCAPLUS
DN 133:142534
TI Synthesis of a self-crosslinking polymer and its application in water-developable chemically amplified negative photoresist

AU Chen, Qi-Dao; Chen, Ming; Lin, Tian-Shu; Hong, Xiao-Yin; Huang, Zhi-Qi; Hu, De-Fu

CS Department of Chemistry, Tsinghua University, Beijing, 100084, Peop. Rep. China

SO Ganguang Kexue Yu Guang Huaxue (2000), 18(2), 155-159
CODEN: GKKHE9; ISSN: 1000-3231

PB Kexue Chubanshe

DT Journal

LA Chinese

AB A new kind of acid-sensitive polymer with Tg = 95°C and Mn = 7,625, Mw = 25,013 (Mw/Mn = 3.28) was synthesized by the co-polymerization of styrene, N-(4-hydroxyphenyl) maleimide and methylacrylamidoglycolate methylether(MAGME). This MAGME containing co-polymer can be self-crosslinked via acid-catalyzed condensation reaction when heated. A new kind of chemical amplified neg. photoresist without crosslinking agent was studied using this co-polymer as the base resin, which was developable in harmless NaOH-H2O solution Diaryliodonium hexafluorophosphate was used in the photoresist as the photo-**acid generator** to supply the strong acid and phenothiazine was the photosensitizer. The condition of photolithog. was preliminarily investigated.

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38, 76

ST crosslinking polymer water developable chem amplified neg photoresist

IT Photoresists
(Synthesis of self-crosslinking polymer and application in water-developable chemical amplified neg. photoresist)

IT Polymerization
(condensation; Synthesis of self-crosslinking polymer and application in water-developable chemical amplified neg. photoresist)

IT 92-84-2, Phenothiazine 61358-25-6
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(Synthesis of self-crosslinking polymer and application in water-developable chemical amplified neg. photoresist)

IT 286477-89-2DP, hydrolyzed
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Synthesis of self-crosslinking polymer and application in water-developable chemical amplified neg. photoresist)

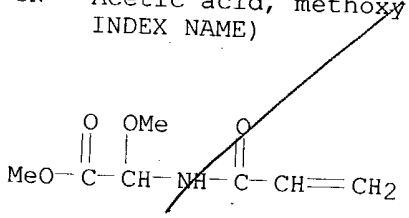
IT 100-42-5, Styrene, reactions 108-31-6, 2,5-Furandione, reactions 123-30-8, 4-Aminophenol 7300-91-6, N-(4-Hydroxyphenyl) maleimide **77402-03-0**, Methylacrylamidoglycolate methylether
RL: RCT (Reactant); RACT (Reactant or reagent)
(Synthesis of self-crosslinking polymer and application in water-developable chemical amplified neg. photoresist)

IT 6637-46-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(Synthesis of self-crosslinking polymer and application in water-developable chemical amplified neg. photoresist)

IT 1310-73-2, Sodium hydroxide, uses 7732-18-5, Water, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Synthesis of self-crosslinking polymer and application in water-developable chemical amplified neg. photoresist)

IT **77402-03-0**, Methylacrylamidoglycolate methylether
RL: RCT (Reactant); RACT (Reactant or reagent)
(Synthesis of self-crosslinking polymer and application in water-developable chemical amplified neg. photoresist)

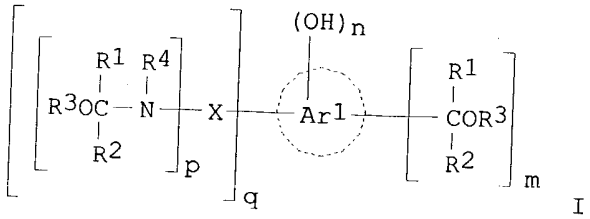
RN 77402-03-0 HCAPLUS
CN Acetic acid, methoxy[(1-oxo-2-propenyl)amino]-, methyl ester (9CI) (CA INDEX NAME)



L14 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:143355 HCAPLUS
DN 132:201058
TI Negative-working image-recording material useful as lithographic plate material, etc.
IN Nakamura, Ippei
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000066393	A2	20000303	JP 1998-229722	19980814
PRAI	JP 1998-229722		19980814		

OS MARPAT 132:201058
GI



I

AB The title material contains (a) a compound having crosslinking ability of the formula I [Ar1 = (un)substituted aromatic hydrocarbon ring; R1-R3 = H, C≤12 hydrocarbyl; R4 = H, C≤7 hydrocarbyl; X = di- or trivalent linking group; n = 1-3; m = 1-4; p, q = 1 or 2], (b) a polymer having aromatic hydrocarbon rings to which OH or alkoxy groups link directly on its side chain or backbone as a binder, (c) a compound **generating** an **acid** upon heating, and (d) an IR absorbent. The material is capable of direct platemaking from digital data by using IR lasers and shows high sensitivity toward lasers and storage stability under high moisture conditions.

IC ICM G03F007-038
ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST neg IR sensitive resist lithog platemaking; arom crosslinking agent neg IR sensitive resist image recording

IT Optical materials
Optical materials
(IR absorbers; neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

IT IR materials
(absorbers; neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

IT Crosslinking agents
Negative photoresists
(neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

IT Lithographic plates
(neg.-working presensitized; neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

IT 69415-30-1
RL: TEM (Technical or engineered material use); USES (Uses)
(IR absorbents; neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

IT 215253-67-1
RL: TEM (Technical or engineered material use); USES (Uses)
(**acid generator**; neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

IT 24979-70-2
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

IT 50-00-0, Formaldehyde, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydroxymethylation of amino-containing phenols with; neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

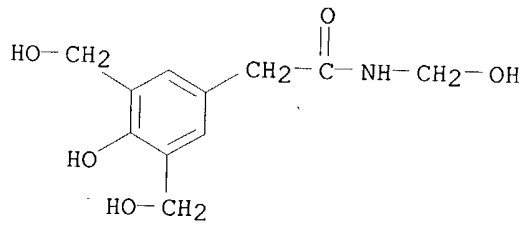
IT 17194-82-0 22446-40-8 51749-20-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydroxymethylation of; neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

IT **259795-64-7P** 259795-65-8P **259795-66-9P**
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

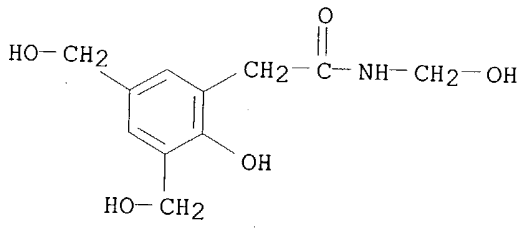
IT **259795-64-7P 259795-66-9P**
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(neg.-working image-recording material for lithog. plate, and containing aromatic crosslinking agents, binder polymers, heat-induced **acid generator**, and IR absorbents)

RN 259795-64-7 HCAPLUS
CN Benzeneacetamide, 4-hydroxy-N,3,5-tris(hydroxymethyl)- (9CI) (CA INDEX

NAME)



RN 259795-66-9 HCAPLUS
CN Benzeneacetamide, 2-hydroxy-N,3,5-tris(hydroxymethyl)- (9CI) (CA INDEX NAME)



L14 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:404921 HCAPLUS
DN 131:73975
TI Preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivatives as metalloproteinase inhibitors
IN Fujisawa, Tetsunori; Odake, Shinjiro; Hongo, Kazuya; Ohtani, Miwa; Yasuda, Junko; Morikawa, Tadanori
PA Fuji Yakuhin Kogyo Kabushiki Kaisha, Japan
SO PCT Int. Appl., 172 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9931052	A1	19990624	WO 1998-JP5620	19981211
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2313649	AA	19990624	CA 1998-2313649	19981211
	AU 9915066	A1	19990705	AU 1999-15066	19981211
	AU 753017	B2	20021003		
	JP 2000086611	A2	20000328	JP 1998-374945	19981211
	EP 1038864	A1	20000927	EP 1998-959181	19981211
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI

	BR 9813554	A	20010724	BR 1998-13554	19981211
	RU 2200154	C2	20030310	RU 2000-118320	19981211
PRAI	JP 1997-362364	A	19971212		
	JP 1998-218676	A	19980717		
	WO 1998-JP5620	W	19981211		

OS MARPAT 131:73975

AB Claimed are compds. represented by general formula R1ONR2COCHR3CHR4CONHCH(CR7R8R9)CONR5R6 or salts thereof [I; wherein R1 represents hydrogen, (un)substituted aralkyl, tri-substituted silyl, tetrahydropyranyl, (un)substituted aralkyloxycarbonyl, (un)substituted alkyl, or a hydroxy-protective group; R2 represents hydrogen, (un)substituted aralkyloxycarbonyl, (un)substituted alkyloxycarbonyl, 9-fluorenylmethyloxycarbonyl, or an amino-protective group; R3, R7 and R8 represent each hydrogen, hydroxy, (un)substituted alkyl, or (un)substituted aralkyl; R4 represents (un)substituted alkyl or (un)substituted arylalkyl; R5 and R6 are the same or different and each represents hydrogen, (un)substituted alkyl, (un)substituted cycloalkyl, (un)substituted heterocyclyl, or an amino-protective group; or NR5R6 represents an (un)substituted heterocyclyl; and R9 represents hydrogen, hydroxy, amino, or -X-Y; wherein X represents (un)substituted C1-6 alkylene or (un)substituted phenylene; Y represents -A-B; wherein A represents (un)substituted C1-6 alkylene, O, S, NH, or (un)substituted C1-6 alkylene imino; B represents hydrogen, amino, amidino, acylimidoyl, (un)substituted imidazolyl, (un)protected bisphosphonomethyl, or (un)protected bisphosphonohydroxymethyl]. Also claimed are (i) medicinal and/or veterinary compns. containing I, in particular, metalloproteinase inhibitors inhibiting matrix metalloproteinases and tumor necrosis factor-α (TNF-α) convertase and (ii) the use of I for the prevention or treatment of tissue degenerative diseases. These compds. have not only a high metalloproteinase inhibitory activity but also remarkably improved medicinal applicability (in vivo) (oral absorbability, etc.) and biol. activities and thus being useful as drugs. Thus, treatment of Nα-tert-butoxycarbonyl-Nε,Nε-bis(benzyloxycarbonyl)-L-arginine-N-methylamide with 4 N HCl/EtOAc followed by condensation with 4-(p-phthalimidomethylphenyl)-3(RS)-tert-butoxycarbonyl-2(R)-isobutylbutyric acid, treatment with CF3CO2H, condensation with O-benzylhydroxylamine hydrochloride, and hydrogenolysis over 5% Pd-C gave Nα-[4-(hydroxyamino)-2(R)-isobutyl-3(RS)-(p-phthalimidomethylbenzyl)succinyl]-L-arginine N-methylamine monoacetic acid salt (II). II showed IC50 of 2 nM against Matrix metalloproteinase MMP-3. Pharmaceutical formulations containing I, e.g. an ointment containing II, were described.

IC ICM C07C259-06
ICS C07C237-22; C07C213-74; C07D233-74; C07D295-18; C07F009-38; C07H013-04; A61K031-215; A61K031-275; A61K031-27; A61K031-16; A61K031-18; A61K031-24; A61K031-70; A61K031-445; A61K031-535; A61K031-44; A61K031-415

CC 34-2 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1, 7, 63

ST hydroxyaminosuccinyl amino acid amide prepn metalloproteinase inhibitor; tumor necrosis factor convertase inhibitor hydroxyaminosuccinylamino acid amide; tissue **degenerative** disease treatment amino **acid** amide

IT Amides, preparation
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(amino; preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

IT Disease, animal
(degenerative, tissue; preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

IT Disease, animal
(degenerative; preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

IT Tumor necrosis factors
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(production inhibitors; preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

IT 9001-12-1, Collagenase
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(Matrix metalloproteinase MMP-1; preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

IT 228260-28-4P 228260-30-8P 228260-32-0P 228260-34-2P 228260-36-4P
228260-38-6P 228260-40-0P 228260-42-2P 228260-44-4P 228260-45-5P
228260-46-6P 228260-47-7P 228260-48-8P 228260-50-2P 228260-52-4P
228260-54-6P 228260-56-8P 228260-58-0P 228260-60-4P 228260-62-6P
228260-64-8P 228260-66-0P 228260-68-2P 228260-70-6P 228260-72-8P
228260-74-0P 228260-76-2P 228260-78-4P 228260-80-8P 228260-82-0P
228260-84-2P 228260-86-4P 228260-88-6P 228260-90-0P 228260-92-2P
228260-94-4P 228260-96-6P 228260-98-8P 228261-00-5P 228261-02-7P
228261-03-8P 228261-04-9P 228261-06-1P 228261-08-3P 228261-09-4P
228261-10-7P 228261-12-9P 228261-14-1P 228261-16-3P 228261-18-5P
228261-20-9P 228261-22-1P 228261-24-3P 228261-26-5P 228261-28-7P
228261-30-1P 228261-32-3P 228261-34-5P 228261-36-7P 228261-38-9P
228261-39-0P 228261-41-4P 228261-43-6P 228261-45-8P 228261-47-0P
228261-49-2P 228261-50-5P 228261-52-7P 228261-54-9P 228261-56-1P
228261-58-3P 228261-60-7P 228261-62-9P 228261-64-1P 228261-66-3P
228261-68-5P 228261-70-9P 228261-72-1P 228261-74-3P 228261-76-5P
228261-78-7P 228261-80-1P 228261-82-3P 228262-73-5P 228262-75-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

IT 79955-99-0, Matrix metalloproteinase MMP-3 151769-16-3, Tumor necrosis factor-α convertase
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

IT 67-64-1, 2-Propanone, reactions 74-88-4, reactions 100-51-6, Benzyl alcohol, reactions 108-00-9, N,N-Dimethylethylenediamine 593-51-1, Methylamine hydrochloride 762-04-9, Diethyl phosphite 765-30-0, Cyclopropanamine 868-85-9, Dimethyl phosphite 872-85-5, 4-Pyridinecarboxaldehyde 2208-07-3, Ethyl acetimidate hydrochloride 2213-43-6, 1-Aminopiperidine 2389-45-9 2480-93-5 3756-30-7, Methallyl iodide 4319-49-7, 4-Aminomorpholine 4392-24-9, Cinnamyl

bromide 5873-90-5, Methyl benzimidate hydrochloride 6168-72-5 15255-86-4 25691-37-6 38336-04-8 40546-35-8, Ethyl propionimidate hydrochloride 42990-28-3 51219-19-3 54613-99-9 75059-04-0, 4-Nitrocinnamyl bromide 84851-00-3 131724-45-3 152120-55-3, 1H-Pyrazole-N,N'-bis(benzyloxycarbonyl)carboxamidine 157604-22-3 200865-04-9 228261-84-5 228261-88-9 228262-25-7 228262-26-8 228262-27-9 228262-28-0 228262-29-1 228262-30-4 228262-31-5 228262-32-6 228262-33-7 228262-34-8 228262-35-9 228262-36-0 228262-37-1 228262-38-2 228262-39-3 228262-40-6 228262-41-7 228262-42-8 228262-43-9 228262-44-0 228262-45-1 228262-46-2 228262-47-3 228262-48-4 228262-49-5 228262-50-8 228262-51-9 228262-52-0 228262-53-1 228262-54-2 228262-55-3 228262-56-4 228262-57-5 228262-58-6 228262-59-7 228262-60-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

IT 64569-70-6P 139178-57-7P 139178-70-4P 184948-23-0P 184948-24-1P 184948-26-3P 184948-84-3P 188774-95-0P 209978-01-8P 228260-12-6P 228260-13-7P 228260-14-8P 228260-15-9P 228260-16-0P 228260-17-1P 228260-18-2P 228260-19-3P 228260-20-6P 228260-21-7P 228260-22-8P 228260-23-9P 228260-24-0P **228260-25-1P** 228260-26-2P 228261-85-6P 228261-86-7P **228261-87-8P** 228261-89-0P 228261-90-3P 228261-91-4P 228261-93-6P 228261-94-7P 228261-95-8P 228261-96-9P 228261-97-0P 228261-98-1P 228261-99-2P 228262-00-8P 228262-01-9P 228262-02-0P 228262-03-1P **228262-05-3P** 228262-06-4P 228262-07-5P 228262-08-6P 228262-09-7P 228262-10-0P 228262-11-1P 228262-13-3P 228262-14-4P 228262-15-5P 228262-17-7P 228262-18-8P 228262-19-9P 228262-20-2P 228262-21-3P 228262-22-4P 228262-23-5P 228262-24-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

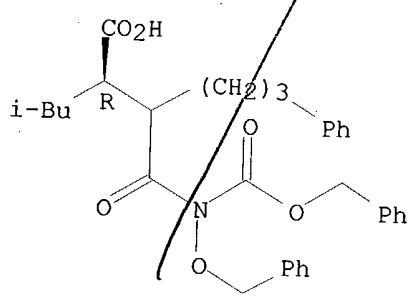
IT **228260-25-1P 228261-87-8P 228262-05-3P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N-[4-(hydroxyamino)succinyl]amino acid amide derivs. as metalloproteinase tumor necrosis factor-α convertase inhibitors)

RN 228260-25-1 HCAPLUS

CN Benzenehexanoic acid, α-(2-methylpropyl)-β-[[(phenylmethoxy)[(phenylmethoxy)carbonyl]amino]carbonyl]-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

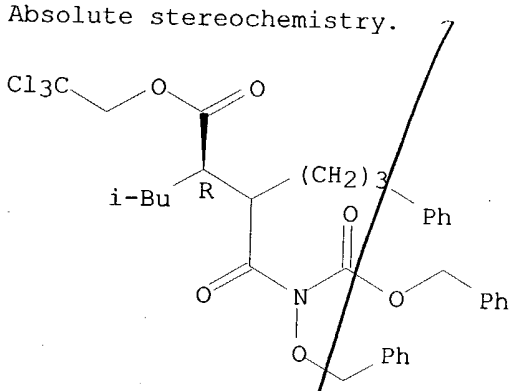


RN 228261-87-8 HCAPLUS

CN Benzenehexanoic acid, α-(2-methylpropyl)-β-

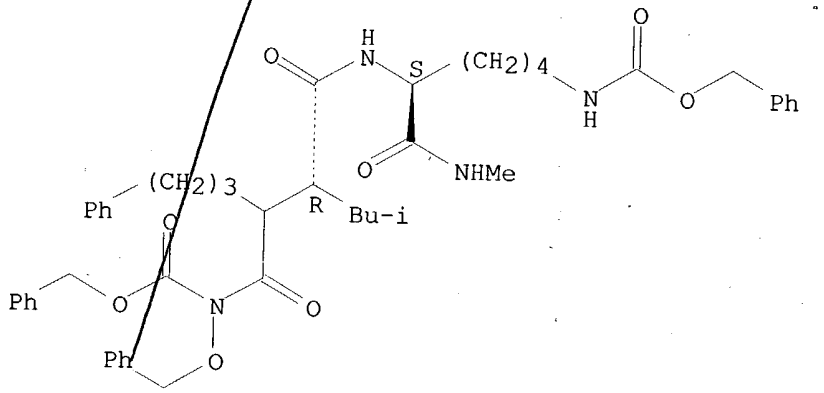
[[(phenylmethoxy)[(phenylmethoxy)carbonyl]amino]carbonyl]-, 2,2,2-trichloroethyl ester, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 228262-05-3 HCAPLUS
CN 2-Oxa-4,9,15-triazahexadecan-16-oic acid, 10-[(methylamino)carbonyl]-7-(2-methylpropyl)-3,5,8-trioxo-1-phenyl-4-(phenylmethoxy)-6-(3-phenylpropyl)-, phenylmethyl ester, (7R,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:133511 HCAPLUS
DN 128:141526
TI Photosensitive resin composition for photo-cast-molding
IN Nakamura, Shohei; Anai, Kousi
PA Asahi Kasei Kogyo K. K., Japan
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

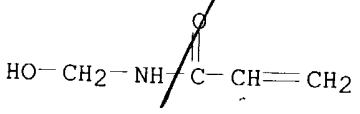
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 819714	A1	19980121	EP 1997-112173	19970716

EP 819714 B1 20011128
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
US 5990190 A 19991123 US 1997-892952 19970715
EP 957120 A1 19991117 EP 1999-113270 19970716
EP 957120 B1 20020403
R: DE, FR, GB
PRAI JP 1996-205466 A 19960717
JP 1996-205467 A 19960717
EP 1997-112173 A3 19970716

AB A title composition, useful in small-number production of duplicate models, and a process for producing a cast molding are claimed. The composition has UV transmittance of 0.05-5% as measured at 1 mm thickness and contains an UV absorber, an inorg. filler selected from CaCO3, MgCO3, Mg(OH)2 and MgO, a photopolymn. initiator, a leuco dye, a compound **generating acid** upon UV irradiation and a polymer having mol. weight 800-9000, especially an unsatd. polyurethane or polyester. A typical composition having UV transmittance 0.57% (1 mm) was prepared by combining N-methylolacrylamide and methacrylamide with a prepolymer obtained from polycaprolactone diol, TDI and 2-hydroxypropyl methacrylate, and adding CaCO3 and α-methoxybenzoin Me ether to the mixture The mixture was heated to 40°, poured in a preheated (65°) silicone rubber mold and UV-irradiated for 10 min to give a duplicate model.

IC ICM C08G018-67
ICS C08F290-06; C08K003-00
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 35, 38
ST photosensitive resin compn photocast molding; casting photopolymerizable polyester polyurethane compn; polycaprolactone TDI hydroxypropyl methacrylate prepolymer photopolymn; calcium carbonate filler photopolymerizable resin compn; methylolacrylamide polyester polyurethane copolymer photopolymerizable compn; methacrylamide polyester polyurethane copolymer photopolymerizable compn
IT Molding of plastics and rubbers
(photo-casting; photosensitive resin composition for photo-cast-molding)
IT Crosslinking
(photochem.; photosensitive resin composition for photo-cast-molding)
IT Polyurethanes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyester-; photosensitive resin composition for photo-cast-molding)
IT Polyurethanes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyester-polyether-; photosensitive resin composition for photo-cast-molding)
IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers with polycaprolactone diol, TDI, and acrylic monomers; photosensitive resin composition for photo-cast-molding)
IT 3896-11-5
RL: MOA (Modifier or additive use); USES (Uses)
(UV absorber; photosensitive resin composition for photo-cast-molding)
IT 471-34-1, Softon 3200, uses 546-93-0, Magnesium carbonate 1309-42-8, Magnesium hydroxide 1309-48-4, Magnesium oxide, uses
RL: MOA (Modifier or additive use); USES (Uses)
(filler; photosensitive resin composition for photo-cast-molding)

IT 89331-94-2, 3-Dibutylamino-6-methyl-7-anilinofluoran
RL: MOA (Modifier or additive use); USES (Uses)
(leuco dye; photosensitive resin composition for photo-cast-molding)
IT 202395-86-6P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(master model; photosensitive resin composition for photo-cast-molding)
IT 24650-42-8
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; photosensitive resin composition for photo-cast-molding)
IT 79-39-0DP, Methacrylamide, polymers with polycaprolactonediol, TDI, and acrylic monomers 923-26-2DP, polymers with polycaprolactone diol, TDI, and acrylic monomers **924-42-5DP**, polymers with polycaprolactonediol, TDI, de, and hydroxypropyl methacrylate 2873-97-4DP, polymers with polycaprolactone diol, TDI, PPG, and acrylic monomers 25248-42-4DP, Polycaprolactone, diol derivs., polymers with TDI, PPG, and acrylic monomers 25322-69-4DP, Polypropylene glycol, polymers with polycaprolactone diol, TDI, and acrylic monomers 26471-62-5DP, TDI, polymers with polycaprolactone diol, PPG, and acrylic monomers 202395-84-4P, Adipic acid-1,4-butanediol-glycidyl methacrylate-2-hydroxypropyl methacrylate-propoxylated bisphenol A-TDI-tetraethylene glycol dimethacrylate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photosensitive resin composition for photo-cast-molding)
IT **924-42-5DP**, polymers with polycaprolactonediol, TDI, de, and hydroxypropyl methacrylate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photosensitive resin composition for photo-cast-molding)
RN 924-42-5 HCAPLUS
CN 2-Propenamide, N-(hydroxymethyl)- (9CI) (CA INDEX NAME)



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:21505 HCAPLUS
DN 128:121756
TI Positive image-forming composition
IN Kawamura, Koichi; Uenishi, Kazuya
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 49 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 814381	A1	19971229	EP 1997-110034	19970619
	EP 814381	B1	20010919		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, FI

	JP 10010735	A2	19980116	JP 1996-160276	19960620
	JP 10039514	A2	19980213	JP 1996-190939	19960719
PRAI	JP 1996-160276	A	19960620		
	JP 1996-190939	A	19960719		

AB A pos. image-forming composition comprises (a) a compound **generating** an **acid** by the action of light or heat and (b) at least one compound selected from the N-sulfonylamide compds. represented by the formula L1(SO2NR2COR1)n or L1(CONR2SO2R1)n wherein n is an integer of from 1 to 6, R1 represents an aromatic group or an alkyl group, L1 represents an aromatic group or an alkyl group when n is 1 or L1 represents a polyvalent linkage group constituted of nonmetal atoms when n is from 2 to 6, and R2 represents a tertiary alkyl group, an alkoxymethyl group, an arylmethyl group, or an alicyclic alkyl group or (c) a polymer having constitutional units represented by the formula -SO2NR3CO- wherein R3 represents a tertiary alkyl group, an alkoxymethyl group, an arylmethyl group, or an alicyclic alkyl group.

IC ICM G03F007-004
ICS G03F007-039

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pos photoimaging compn lithog plate; sulfonylamide photoacid generator pos photoimaging compn; thermal **acid generator** pos photoimaging compn

IT Positive photoresists
(containing thermal or photochem. **acid generators**)

IT Integrated circuits
Lithographic plates
Semiconductor devices
(pos. photoimaging compns. containing thermal or photochem. **acid generators** for manufacture of)

IT Photoimaging materials
(pos.; containing thermal or photochem. **acid generators**)

IT 201656-41-9 201656-43-1 201656-44-2 **201656-45-3** **201656-46-4** 201656-47-5
RL: TEM (Technical or engineered material use); USES (Uses)
(photochem. **acid generator** for pos. photoresists)

IT 548-62-9, Crystal violet 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 68541-73-1 201656-53-3 201656-54-4 201656-56-6 201656-57-7 201656-59-9 201656-61-3 201656-63-5 201656-65-7 201656-67-9 201656-68-0
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. photoresists containing)

IT 77-58-7 85-44-9, 1,3-Isobenzofurandione 95-57-8, o-Chlorophenol 22371-56-8, NK-3508 38686-70-3 69432-40-2 117283-53-1, Victoria Pure Blue BOH 1-naphthalenesulfonate
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. photoresists containing sulfonylamide photoacid generators and)

IT 201656-49-7P
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation and reaction in preparing photochem. **acid generator** for pos. photoresists)

IT 153698-69-2P 201656-52-2P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use as dissoln. inhibitor for pos. photoresists)

IT **201656-40-8P** 201656-42-0P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use as photochem. **acid generator** for pos. photoresists)

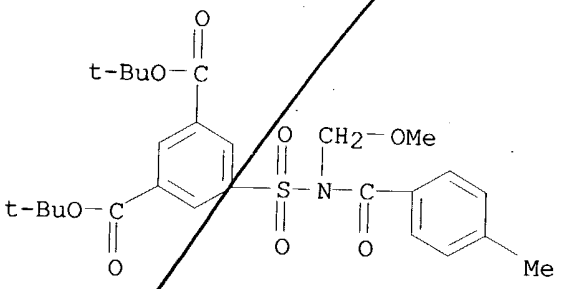
IT 24979-70-2DP, Poly(p-hydroxystyrene), reaction products with tert-Bu bromoacetate 125325-82-8P 129674-22-2P, p-tert-Butoxycarbonyloxystyrene-p-hydroxystyrene copolymer 201656-50-0P 201656-51-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in preparing pos. photoresists)

IT 76937-83-2, α,α,α',α',α'',α''-Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 110726-28-8, 1-[α-Methyl-α-(4'-hydroxyphenyl)ethyl]-4-[α',α'-bis(4''-hydroxyphenyl)ethyl]benzene
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(reaction in preparing dissoln. inhibitor for pos. photoresists)

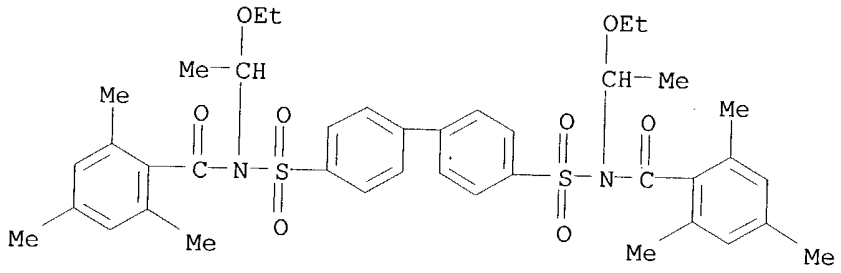
IT 121-44-8, reactions 920-46-7, Methacrylic chloride 2849-81-2 3587-60-8, Benzyl chloromethyl ether 201656-48-6
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(reaction in preparing photochem. **acid generator** for pos. photoresists)

IT **201656-45-3 201656-46-4**
RL: TEM (Technical or engineered material use); USES (Uses)
(photochem. **acid generator** for pos. photoresists)

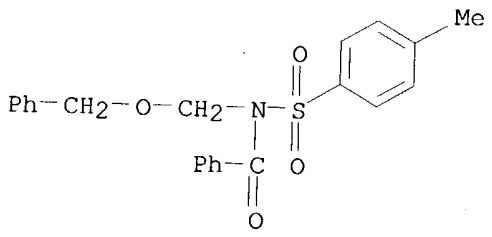
RN 201656-45-3 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 5-[[(methoxymethyl)(4-methylbenzoyl)amino]sulfonyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 201656-46-4 HCAPLUS
CN Benzamide, N,N'-[[1,1'-biphenyl]-4,4'-diylbis(sulfonyl)]bis[N-(1-ethoxyethyl)-2,4,6-trimethyl- (9CI) (CA INDEX NAME)



IT **201656-40-8P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use as photochem. **acid generator** for pos. photoresists)
RN 201656-40-8 HCAPLUS
CN Benzamide, N-[(4-methylphenyl)sulfonyl]-N-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



L14 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:41452 HCAPLUS
DN 126:157253
TI Convenient synthesis of unsymmetric N,N'-disubstituted malondiamides mediated by Meldrum's acid
AU Lee, Hyeon Kyu; Lee, Jin Pyo; Lee, Ge Hyeong; Pak, Chwang Siek
CS Korea Research Institute Chemical Technology, Taejon, 305-606, S. Korea
SO Synlett (1996), (12), 1209-1210
CODEN: SYNLES; ISSN: 0936-5214
PB Thieme
DT Journal
LA English
OS CASREACT 126:157253
AB A simple and convenient method for the synthesis of sym. and unsym. malondiamides in excellent yields from the reaction of various amines and 5-(α-amino-α'-hydroy)methylene Meldrum's **acids**, which were **generated** from Meldrum's **acid** and alkyl or aryl isocyanates, is described.
CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
ST malondiamide prepn; amine methylene Meldrums acid condensation
IT Amides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(diamides; synthesis of malondiamides mediated by Meldrum's acid)
IT 55-21-0, Benzamide 75-64-9, tert-Butylamine, reactions 98-64-6 102-36-3, 3,4-Dichlorophenyl isocyanate 104-12-1, 4-Chlorophenyl

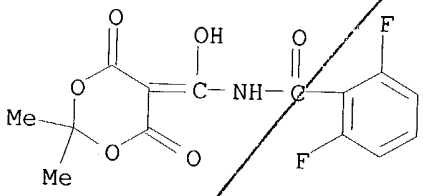
isocyanate 104-84-7 106-47-8, reactions 110-89-4, Piperidine, reactions 111-36-4, Butyl isocyanate 329-01-1, 3-Trifluoromethylphenyl isocyanate 445-03-4 452-83-5 452-84-6 614-68-6, 2-Methylphenyl isocyanate 626-43-7 1609-86-5, tert-Butyl isocyanate 1795-48-8, Isopropyl isocyanate 1873-29-6, Isobutyl isocyanate 2033-24-1, Meldrum's acid 4083-64-1, Tosyl isocyanate 60731-73-9, 2,6-Difluorobenzoyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of malondiamides mediated by Meldrum's acid)

IT 186972-98-5P 186973-00-2P 186973-02-4P 186973-04-6P **186973-05-7P** 186973-06-8P 186973-07-9P 186973-08-0P 186973-09-1P 186973-10-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of malondiamides mediated by Meldrum's acid)

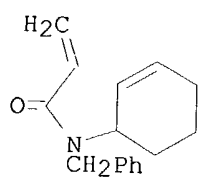
IT 10222-94-3P 186973-11-5P 186973-12-6P 186973-13-7P 186973-14-8P 186973-15-9P 186973-16-0P 186973-17-1P 186973-18-2P 186973-19-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of malondiamides mediated by Meldrum's acid)

IT **186973-05-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of malondiamides mediated by Meldrum's acid)

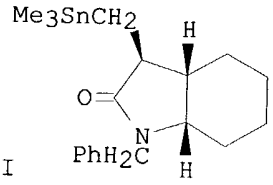
RN 186973-05-7 HCAPLUS
CN Benzamide, N-[(2,2-dimethyl-4,6-dioxo-1,3-dioxan-5-ylidene)hydroxymethyl]-2,6-difluoro- (9CI) (CA INDEX NAME)



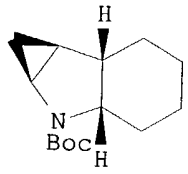
L14 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:9661 HCAPLUS
DN 126:144071
TI The stereocontrolled synthesis of enantiopure α-methano heterocycles and constrained amino acid analogs
AU Hanessian, Stephen; Reinhold, Ulrich; Ninkovic, Sacha
CS Dep. Chem., Univ. Montreal, Montreal, QC, H3C 3J7, Can.
SO Tetrahedron Letters (1996), 37(50), 8967-8970
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier
DT Journal
LA English
GI



I



II



III

AB Addition of trimethylstannyl radicals to acrylate and acrylamide derivs. that contain olefinic groups leads to the corresponding lactones and lactams with good to excellent stereochem. control. α-Methano heterocycles can be easily elaborated from the α-trimethylstannylmethyl intermediates via putative oxonium and iminium ions **generated** under **acids** conditions. For example, the acrylamide I gives rise to the α-trimethylstannylmethyl intermediate II in 74% yield (>10:1 diastereomer ratio) and the final product, α-methano heterocyclic III (single diastereomer), is obtained in 86% yield.

CC 27-10 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 34

ST heterocycle methano substituted stereocontrolled synthesis; constrained amino acid analog asym synthesis; lactam prepn trimethylstannyl radical addn acrylamide; lactone prepn trimethylstannyl radical addn acrylate

IT Heterocyclic compounds
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(N-, O-containing; stereocontrolled synthesis of enantiopure α-methano heterocycles and constrained proline analogs)

IT Amino acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(constrained; stereocontrolled synthesis of enantiopure α-methano heterocycles and constrained proline analogs)

IT 186451-30-9P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereocontrolled synthesis of enantiopure α-methano heterocycles and constrained proline analogs)

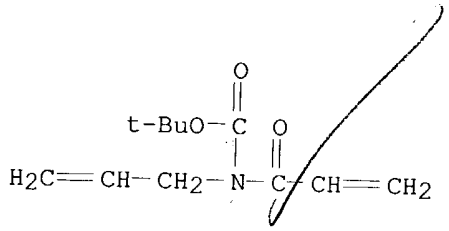
IT 3085-68-5 127368-26-7 160925-28-0 186451-21-8 186451-22-9
186451-23-0 186451-24-1 186451-25-2 186451-26-3
186451-27-4 186451-28-5 186451-29-6 186451-57-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(stereocontrolled synthesis of enantiopure α-methano heterocycles and constrained proline analogs)

IT 186451-31-0P 186451-32-1P 186451-33-2P 186451-34-3P 186451-37-6P
186451-38-7P 186451-39-8P 186451-40-1P 186451-47-8P 186451-59-2P
186451-60-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereocontrolled synthesis of enantiopure α-methano heterocycles and constrained proline analogs)

IT 186451-35-4P 186451-36-5P 186451-41-2P 186451-42-3P 186451-43-4P
186451-44-5P 186451-45-6P 186451-49-0P 186451-52-5P 186451-55-8P
186451-58-1P 186451-61-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(stereocontrolled synthesis of enantiopure α-methano heterocycles and constrained proline analogs)

IT **186451-23-0**

RL: RCT (Reactant); RACT (Reactant or reagent)
(stereocontrolled synthesis of enantiopure α-methano heterocycles and constrained proline analogs)
RN 186451-23-0 HCAPLUS
CN Carbamic acid, (1-oxo-2-propenyl)-2-propenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:499058 HCAPLUS
DN 125:181047
TI Water-soluble resist for "environmentally friendly" lithography
AU Lin, Qinghuang; Simpson, Logan; Steinhausler, Thomas; Wilder, Michelle; Willson, C. Grant; Havard, Jennifer; Frechet, Jean M. J.
CS Dep. Chem. Chem. Eng., Univ. Texas, Austin, TX, 78712-1026, USA
SO Proceedings of SPIE-The International Society for Optical Engineering (1996), 2725(Metrology, Inspection, and Process Control for Microlithography X), 308-318
CODEN: PSISDG; ISSN: 0277-786X
PB SPIE-The International Society for Optical Engineering
DT Journal
LA English
AB This paper describes an "environmentally friendly", water castable, water developable photoresist system. The chemical amplified neg.-tone resist system consists of three water-soluble components: a polymer, poly(Me acrylamidoglycolate Me ether), [poly(MAGME)]; a photoacid generator, di-Me dihydroxyphenylsulfonium triflate and a crosslinker, butanediol. Poly(MAGME) was synthesized by solution free radical polymerization In the three-component resist system, the **acid generated** by photolysis of the photoacid generator catalyzes the crosslinking of poly(MAGME) in the exposed regions during post-exposure baking, thus rendering the exposed regions insol. in water. Neg. tone relief images are obtained by developing with pure water. The resist is able to resolve 1 μm line/spacer features (1:1 aspect ratio) with an exposure dose of 100 mJ/cm2 at 248 nm. The resist can be used to generate etched copper relief images on printed circuit boards using aqueous sodium persulfate as the etchant. The crosslinking mechanism has been investigated by model compound studies using 13C NMR. These studies have revealed that the acid catalyzed reaction of the poly(MAGME) with butanediol proceeds via both transesterification and transacetalization (transaminalization) reactions at low temps., and also via transamidation at high temps.
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST lithog chem amplified water developable photoresist
IT Crosslinking
(mechanism of crosslinking of environmentally friendly water developable photoresist system containing poly(Me acrylamidoglycolate Me ether) onium salt and butanediol)
IT Resists

(photo-, chemical amplified; environmentally friendly water developable photoresist system)

IT Electric circuits
(printed, environmentally friendly water developable photoresist system)

IT 25265-75-2, Butanediol
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinker; lithog. environmentally friendly water developable photoresist system)

IT 7775-27-1, Sodium persulfate
RL: NUU (Other use, unclassified); USES (Uses)
(environmentally friendly water developable photoresist system for printed circuit boards imaging)

IT 104452-10-0, Methyl acrylamidoglycolate methyl ether homopolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(lithog. environmentally friendly water developable photoresist system)

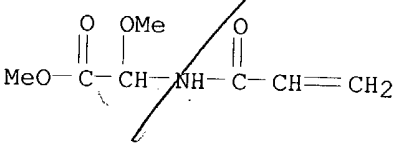
IT 180787-54-6
RL: TEM (Technical or engineered material use); USES (Uses)
(photoacid acid; lithog. environmentally friendly water developable photoresist system)

IT **77402-03-0**, Methyl acrylamidoglycolate methyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization for application in environmentally friendly water developable
photoresist system)

IT **77402-03-0**, Methyl acrylamidoglycolate methyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization for application in environmentally friendly water developable
photoresist system)

RN 77402-03-0 HCAPLUS

CN Acetic acid, methoxy[(1-oxo-2-propenyl)amino]-, methyl ester (9CI) (CA INDEX NAME)



L14 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:828337 HCAPLUS

DN 123:257418

TI Preparation of polypeptides and method for determination of anti-human thyroid stimulation hormone (TSH) receptor antibody using the peptides

IN Yanaihara, Noboru; Matsuoka, Tooru; Kurihara, Takashi

PA Mitsubishi Kagaku KK, Japan

SO Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07089991	A2	19950404	JP 1993-240853	19930928
PRAI	JP 1993-240853		19930928		

AB Polypeptides having at least ≥1 of amino acid sequences related to human TSH receptor, e.g. H-Glu-Glu-Tyr-Met-Gln-Thr-Val-Leu-OH and

H-Lys-Ile-Tyr-Ile-Thr-Val-Arg-Asn-Pro-Gln-Tyr-Asn-Pro-Gly-Asp-Lys-Asp-Thr-Lys-Ile-Ala-Lys-Arg-OH (I), or partial sequences thereof and also having affinity to anti-human TSH receptor antibody, are prepared A method for determination of anti-TSH receptor antibody involves mixing said polypeptide or a mixture of said polypeptides with a sample containing anti-human TSH receptor antibody, forming the anti-human TSH receptor antibody-polypeptide immunocomplex, and determining the immunocomplex. I was prepared by the solid phase method using an automated peptide synthesizer and a Boc-Arg(Tos)-PAM resin and was used to determine human anti-TSH antibody in the serum of Basedow's disease patients by enzyme immunoassay. The epitope anal. of anti-TSH receptor antibody was carried out by the solid-phase synthesis of 379 octapeptides each representing an 8 amino **acid** sequence **generated** by a computer based on the TSH receptor sequence (a polypeptide comprising 764 amino acid residues) and enzyme immunoassay of their affinity to anti-TSH receptor antibody in the serum of Basedow's disease patients.

IC ICM C07K007-06
ICS C07K014-72; G01N033-53

CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1, 9, 15

ST polypeptide prepn TSH receptor antibody detn; human thyroid stimulation hormone receptor antibody; immunoassay TSH receptor antibody

IT Antibodies
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(preparation of polypeptides for determination of anti-human thyroid stimulation hormone (TSH) receptor antibody by formation of anti-human TSH receptor antibody-polypeptide immunocomplex)

IT Peptides, preparation
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(preparation of polypeptides for determination of anti-human thyroid stimulation hormone (TSH) receptor antibody by formation of anti-human TSH receptor antibody-polypeptide immunocomplex)

IT Receptors
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(TSH, preparation of polypeptides for determination of anti-human thyroid stimulation hormone (TSH) receptor antibody by formation of anti-human TSH receptor antibody-polypeptide immunocomplex)

IT **168404-94-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(81intermediate for preparation of polypeptides for immunoassay of anti-human thyroid stimulation hormone (TSH) receptor antibody)

IT 129276-22-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate for preparation of polypeptides for immunoassay of anti-human thyroid stimulation hormone (TSH) receptor antibody)

IT 168404-10-2P 168404-11-3P 168404-12-4P 168404-13-5P 168404-14-6P
168404-15-7P 168404-16-8P 168404-17-9P 168404-18-0P 168404-19-1P
168404-20-4P 168404-21-5P 168404-22-6P 168404-23-7P 168404-24-8P

168404-25-9P 168404-26-0P 168404-27-1P 168404-28-2P 168404-29-3P
168404-30-6P 168404-31-7P 168404-32-8P 168404-33-9P 168404-34-0P
168404-35-1P 168404-36-2P 168404-37-3P 168404-38-4P 168404-39-5P
168404-40-8P 168404-41-9P 168404-42-0P 168404-43-1P 168404-44-2P
168404-45-3P 168404-46-4P 168404-47-5P 168404-48-6P 168404-49-7P
168404-50-0P 168404-51-1P 168404-52-2P 168404-53-3P 168404-54-4P
168404-55-5P 168404-56-6P 168404-57-7P 168404-58-8P 168404-59-9P
168404-60-2P 168404-61-3P 168404-62-4P 168404-63-5P 168404-64-6P
168404-65-7P 168404-66-8P 168404-67-9P 168404-68-0P 168404-69-1P
168404-70-4P 168404-71-5P 168404-72-6P 168404-73-7P 168404-74-8P
168404-75-9P 168404-76-0P 168404-77-1P 168404-78-2P 168404-79-3P
168404-80-6P 168404-81-7P 168404-82-8P
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(octapeptide related to human thyroid stimulation hormone (TSH) receptor; preparation and epitope anal. by binding affinity to anti-human thyroid stimulation hormone (TSH) receptor antibody)

IT 132733-13-2P 168404-83-9P 168404-84-0P 168404-85-1P 168404-86-2P
168404-87-3P 168404-88-4P 168404-89-5P 168404-90-8P 168404-91-9P
168404-92-0P 168404-93-1P 169148-91-8P
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(preparation of polypeptides for immunoassay of anti-human thyroid stimulation hormone (TSH) receptor antibody)

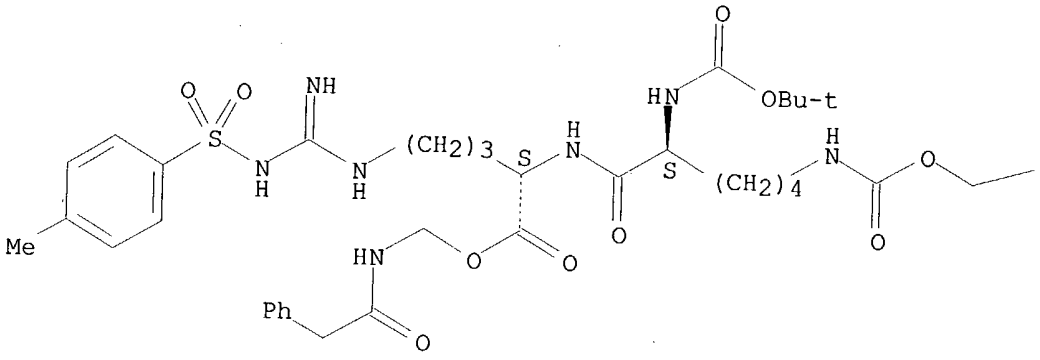
IT 13836-37-8 54613-99-9, Boc-Lys(2-Cl-Z)-OH
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction for preparation of polypeptides for immunoassay of anti-human thyroid stimulation hormone (TSH) receptor antibody)

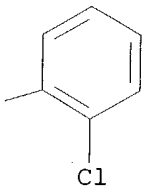
IT **168404-94-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(81intermediate for preparation of polypeptides for immunoassay of anti-human thyroid stimulation hormone (TSH) receptor antibody)

RN 168404-94-2 HCAPLUS
CN L-Ornithine, N2-[N6-[[(2-chlorophenyl)methoxy]carbonyl]-N2-[(1,1-dimethylethoxy)carbonyl]-L-lysyl]-N5-[imino[[(4-methylphenyl)sulfonyl]amino]methyl]-, [(phenylacetyl)amino]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



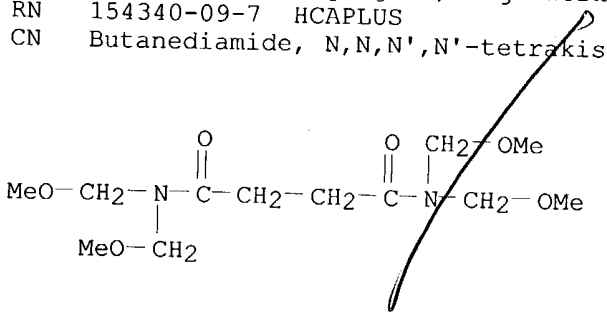


L14 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:257434 HCAPLUS
DN 120:257434
TI Negative-working photoresist composition
IN Ochiai, Tameichi; Takahashi, Noriaki; Ishiguro, Tomoyo
PA Mitsubishi Chemical Industries Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05034921	A2	19930212	JP 1991-190059	19910730
PRAI	JP 1991-190059		19910730		

AB The title composition comprises a hydrogenated alkali-soluble phenolic resin, a crosslinking agent(gram absorption coefficient ≤ 20 L/g.cm at 248 nm) capable of reacting with the above resin in an acidic condition and a photo **acid-generator**. The composition shows small UV absorption, gives high-resolution pattern profile and is very useful as far UV photoresists.
IC ICM G03F007-038
ICS G03F007-004; G03F007-029; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST neg working photoresist compn; alkali sol phenolic resin photoresist
IT Phenolic resins, uses
RL: USES (Uses)
(hydrogenated, alkali-soluble, neg.-working photoresist composition containing)
IT Resists
(photo-, composition, net.-working)
IT 1529-68-6, 1,2,3,4-Tetrabromobutane 30362-01-7, 2,4,6-Tris(dibromomethyl)-s-triazine
RL: USES (Uses)
(**acid generator**, neg.-working photoresist composition containing)
IT 9003-08-1, Cymel 303 17464-88-9 **154340-09-7**
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agent, neg.-working photoresist composition containing)
IT 24979-70-2 59269-51-1
RL: USES (Uses)
(neg.-working photoresist composition containing)
IT **154340-09-7**

RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agent, neg.-working photoresist composition containing)
RN 154340-09-7 HCAPLUS
CN Butanediamide, N,N,N',N'-tetrakis(methoxymethyl)- (9CI) (CA INDEX NAME)



L14 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:65909 HCAPLUS
DN 120:65909
TI Negative-working UV photosensitive composition
IN Ochiai, Tameichi; Takahashi, Noriaki; Ishiguro, Tomoyo
PA Mitsubishi Chemical Industries Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

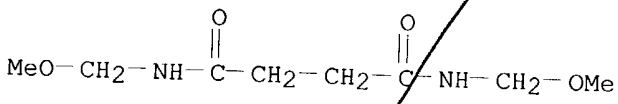
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05034903	A2	19930212	JP 1991-194444	19910802
PRAI	JP 1991-194444		19910802		

AB The title composition contains an alkali-soluble resin, a photosensitive **acid-generating** agent, a crosslinking agent which crosslinks with the alkali-soluble resin under acid condition, and a solvent R1[OCH(Me)CH2]mOR2 (R1, R2 = acetyl, C1-4 alkyl; m = 1, 2). The solvent in the photosensitive composition is nontoxic and the composition shows very good shelf life and good resolution
IC ICM G03F007-004
ICS G03F007-004; G03F007-029; G03F007-038; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST neg working UV photosensitive compn; UV photoresist neg shelf life
IT Phenolic resins, uses
RL: USES (Uses)
(novolak, cresol-based, neg.-working photosensitive compns. containing)
IT Resists
(photo-, UV, **acid-generating**, with improved shelf life)
IT 3089-11-0, Hexamethoxymethyl melamine 52434-90-9, Tris(2, 3-dibromopropyl)isocyanurate 59269-51-1, Poly(vinyl phenol) **148124-25-8**
RL: USES (Uses)
(neg.-working photosensitive composition containing)
IT 84540-57-8, Propylene glycol monomethyl ether acetate 98516-30-4
RL: USES (Uses)
(neg.-working photosensitive composition containing solvent of)
IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
RL: USES (Uses)
(novolak, neg.-working photosensitive composition containing)
IT 1529-68-6, 1, 2, 3, 4-Tetrabromobutane 1837-91-8, 1, 2, 3, 4, 5,

6-Hexabromocyclohexane 17025-47-7, Tribromomethylphenylsulfone 30129-85-2, 2,3-Dibromosulfolane
RL: USES (Uses)
(photosensitive **acid-generating** agent, neg.-working photosensitive composition containing)

IT **148124-25-8**
RL: USES (Uses)
(neg.-working photosensitive composition containing)

RN 148124-25-8 HCAPLUS
CN Butanediamide, N,N'-bis(methoxymethyl)- (9CI) (CA INDEX NAME)

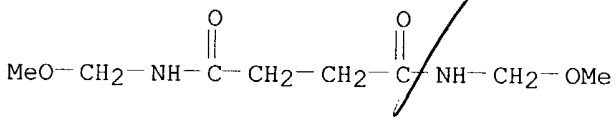


L14 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:417958 HCAPLUS
DN 119:17958
TI Negative-working photosensitive compositions using halogenated sulfolane derivative as photo-**acid-generating** agent
IN Ochiai, Tameichi; Takahashi, Noriaki; Takasaki, Ryuichiro
PA Mitsubishi Chemical Industries Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

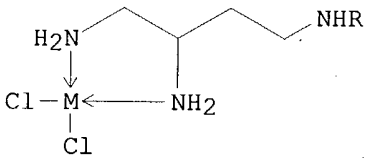
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04338757	A2	19921126	JP 1991-110547	19910515
	JP 2943387	B2	19990830		
PRAI	JP 1991-110547		19910515		

OS MARPAT 119:17958
AB The photosensitive compns. contain an alkali-soluble resin, a crosslinking agent which acts for the resin under acidic conditions, and a halogenated sulfolane derivative as a photo-**acid-generating** agent. The compns. provide high resolution lithog. by exposure with light in deep UV region and i- and g-ray. Thus, a photoresist comprising poly(vinyl phenol), hexamethoxymethylmelamine, and 2,3-dibromosulforane was coated on a Si wafer, patternwise exposed with excimer laser, post-baked, and developed with a Me4NOH solution to form a high resolution pattern.
IC ICM G03F007-038
ICS G03F007-004; G03F007-029; H01L021-027
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
ST sulfolane halogenated **acid generator** photoresist
IT Phenolic resins, uses
RL: USES (Uses)
(neg.-working photoresist containing)
IT Resists
(photo-, neg.-working, halogenated sulfolane as **acid generator** for)
IT 30129-85-2
RL: USES (Uses)
(**acid generator**, neg.-working photoresist containing)

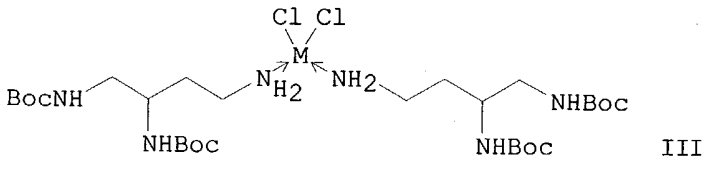
IT 3089-11-0, Hexamethoxymethylmelamine **148124-25-8**
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agent, neg.-working photoresist containing)
IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 59269-51-1, Polyvinylphenol
RL: USES (Uses)
(neg.-working photoresist containing)
IT 92-84-2, Phenothiazine
RL: USES (Uses)
(sensitizer, neg.-working photoresist containing)
IT **148124-25-8**
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agent, neg.-working photoresist containing)
RN 148124-25-8 HCAPLUS
CN Butanediamide, N,N'-bis(methoxymethyl)- (9CI) (CA INDEX NAME)



L14 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:151122 HCAPLUS
DN 116:151122
TI Platinum(II) and palladium(II) complexes of selectively acylated 1,2,4-butanetriamines
AU Altman, Janina; Schuhmann, Elfriede; Karaghiosoff, Konstantin; Eichin-Karaghiosoff, Edith; Beck, Wolfgang
CS Inst. Anorg. Chem., Univ. Muenchen, Munich, D-8000/2, Germany
SO Zeitschrift fuer Naturforschung, B: Chemical Sciences (1991), 46(11), 1473-88
CODEN: ZNBSEN; ISSN: 0932-0776
DT Journal
LA English
OS CASREACT 116:151122
GI



II



III

AB New N1,N2-di-Boc-N4-acyl-1,2,4-butanetriamines BocNHCH2CH(NHBoc)CH2CH2NHR (I, R = acetyl, trifluoroacetyl, benzoyl, carboxycyclohexyl, caproyl,

carboxycyclobutyl) have been prepared by ring cleavage acylation of Nω-acylated histamines with di-tert-Bu dicarbonate, and reduction with Raney nickel. Free vicinal diamines were **generated** by **acidic** removal of Boc-protecting groups and transformed into dichloroplatinum(II) and -palladium(II) complexes II (M = Pt, Pd). By basic treatment of I (R = COCF3) the protecting group was removed from the terminal amine to give N1,N2-di-Boc-1,2,4-butanetriamine, which forms cis-dichloroplatinum(II) and -palladium(II) complexes III (M = Pt, Pd). The compds. have been characterized by IR and NMR (1H, 13C) spectroscopy and elemental anal., and the structures of the trifluoroacetyl compds. confirmed by 1H 13C and 1H 1H 2D NMR spectroscopy.

CC 23-18 (Aliphatic Compounds)
Section cross-reference(s): 1, 78

ST platinum complex acylbutanetriamine cytotoxic; palladium complex acylbutanetriamine cytotoxic; neoplasm inhibitor acylbutanetriamine complex; acylbutanetriamine metal complex

IT Nuclear magnetic resonance
(of platinum and palladium complexes of acylated butanetriamines, proton and carbon-13)

IT Cytotoxic agents
(platinum(II) complexes of acylated butanetriamines)

IT 673-49-4 29677-71-2 41521-26-0 50580-77-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(Bamberger ring cleavage acylation of)

IT 51-45-6, Histamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of)

IT 1333-74-0 14762-74-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(nuclear magnetic resonance, of platinum and palladium complexes of acylated butanetriamines, proton and carbon-13)

IT 74058-75-6P 103827-10-7P 139024-52-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and Bamberger ring cleavage acylation of)

IT 138896-88-5P 138897-04-8P 138897-05-9P 138897-06-0P 138897-07-1P
138897-08-2P 138897-09-3P 138897-10-6P 138897-11-7P 138897-12-8P
138897-13-9P 138897-14-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and NMR spectra of)

IT 139024-81-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and complexation of, with dichloroplatinum and -palladium)

IT 139024-74-1P 139024-75-2P 139024-76-3P 139024-77-4P 139024-78-5P
139024-79-6P 139024-80-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and complexation of, with dichloroplatinum or -palladium)

IT 126441-12-1P 139024-68-3P 139024-69-4P 139024-70-7P 139024-71-8P
139024-72-9P 139024-73-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to dihydrochloride)

IT 139024-53-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deprotection of)

IT **126441-01-8P 126441-10-9P 139024-55-8P**
139024-56-9P 139024-57-0P 139024-59-2P
139024-61-6P 139024-62-7P 139024-63-8P
139024-65-0P 139024-66-1P 139024-67-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

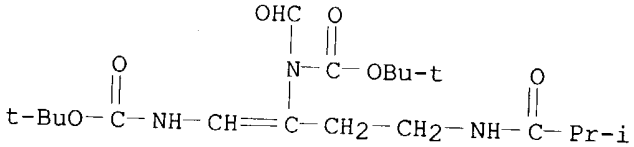
(Reactant or reagent)
(preparation and nickel-catalyzed hydrogenation of)

IT 138896-85-2P 138896-86-3P 138896-87-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, NMR, and cytotoxicity of)

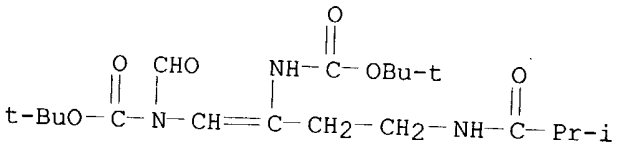
IT **139024-54-7P 139024-58-1P 139024-60-5P**
139024-64-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, deformylation, and nickel-catalyzed hydrogenation of)

IT **126441-01-8P 126441-10-9P 139024-55-8P**
139024-56-9P 139024-57-0P 139024-59-2P
139024-61-6P 139024-62-7P 139024-63-8P
139024-65-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and nickel-catalyzed hydrogenation of)

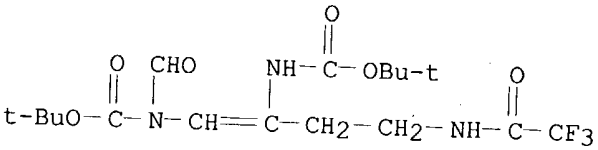
RN 126441-01-8 HCAPLUS
CN Carbamic acid, [1-[[[(1,1-dimethylethoxy)carbonyl]amino]methylene]-3-[(2-methyl-1-oxopropyl)amino]propyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



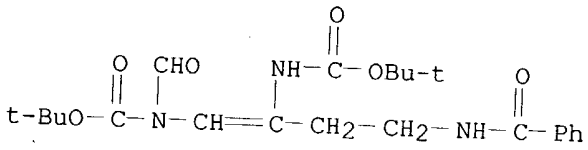
RN 126441-10-9 HCAPLUS
CN Carbamic acid, [2-[[(1,1-dimethylethoxy)carbonyl]amino]-4-[(2-methyl-1-oxopropyl)amino]-1-butenyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



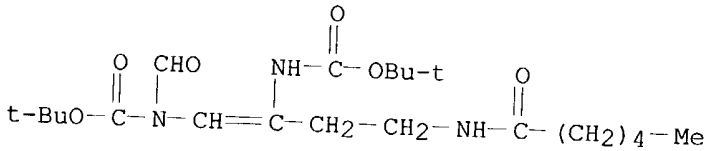
RN 139024-55-8 HCAPLUS
CN Carbamic acid, [2-[[(1,1-dimethylethoxy)carbonyl]amino]-4-[(trifluoroacetyl)amino]-1-butenyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



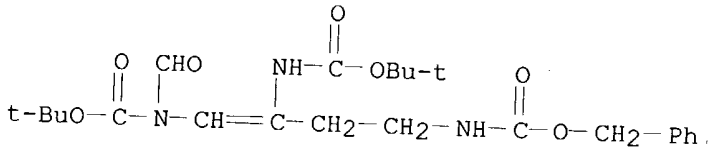
RN 139024-56-9 HCAPLUS
CN Carbamic acid, [4-(benzoylamino)-2-[[(1,1-dimethylethoxy)carbonyl]amino]-1-butenyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



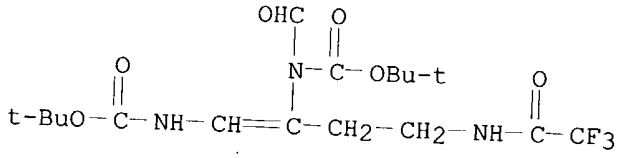
RN 139024-57-0 HCAPLUS
CN Carbamic acid, [2-[[(1,1-dimethylethoxy)carbonyl]amino]-4-[(1-oxohexyl)amino]-1-butenyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



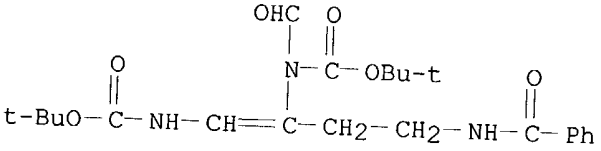
RN 139024-59-2 HCAPLUS
CN Carbamic acid, [2-[[(1,1-dimethylethoxy)carbonyl]amino]-4-[[(phenylmethoxy)carbonyl]amino]-1-butenyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



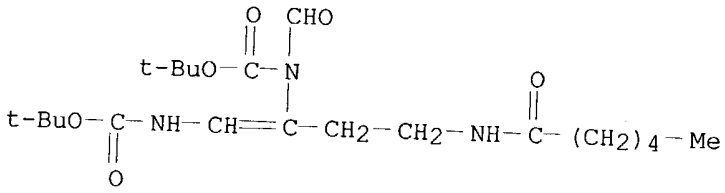
RN 139024-61-6 HCAPLUS
CN Carbamic acid, [1-[[[(1,1-dimethylethoxy)carbonyl]amino]methylene]-3-[(trifluoroacetyl)amino]propyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



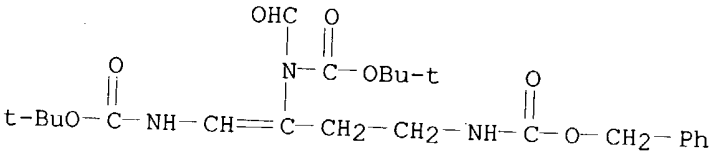
RN 139024-62-7 HCAPLUS
CN Carbamic acid, [3-(benzoylamino)-1-[[[(1,1-dimethylethoxy)carbonyl]amino]methylene]propyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 139024-63-8 HCAPLUS
CN Carbamic acid, [1-[[[(1,1-dimethylethoxy)carbonyl]amino]methylene]-3-[(1-oxohexyl)amino]propyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

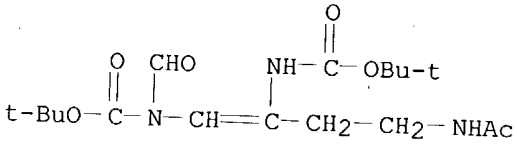


RN 139024-65-0 HCAPLUS
CN Carbamic acid, [1-[[[(1,1-dimethylethoxy)carbonyl]amino]methylene]-3-[[(phenylmethoxy)carbonyl]amino]propyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

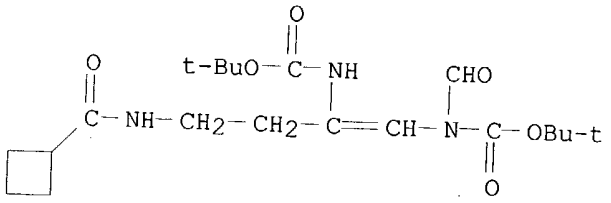


IT **139024-54-7P 139024-58-1P 139024-60-5P 139024-64-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, deformylation, and nickel-catalyzed hydrogenation of)

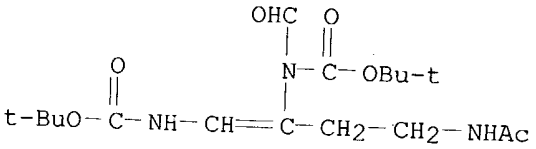
RN 139024-54-7 HCAPLUS
CN Carbamic acid, [4-(acetylamino)-2-[[(1,1-dimethylethoxy)carbonyl]amino]-1-butenyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



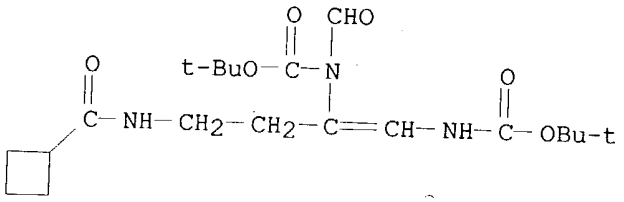
RN 139024-58-1 HCAPLUS
CN Carbamic acid, [4-[(cyclobutylcarbonyl)amino]-2-[[(1,1-dimethylethoxy)carbonyl]amino]-1-butenyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



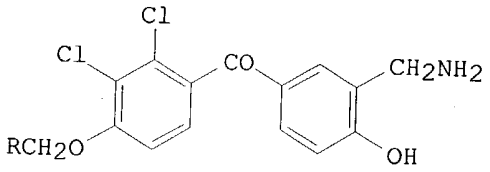
RN 139024-60-5 HCAPLUS
CN Carbamic acid, [3-(acetylamino)-1-[[[(1,1-dimethylethoxy)carbonyl]amino]methylene]propyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



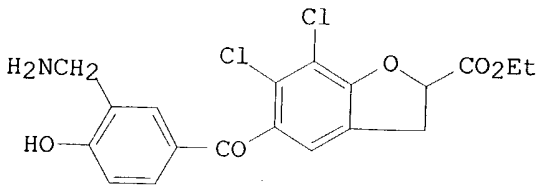
RN 139024-64-9 HCAPLUS
CN Carbamic acid, [3-[(cyclobutylcarbonyl)amino]-1-[[[(1,1-dimethylethoxy)carbonyl]amino]methylene]propyl]formyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L14 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1985:112972 HCAPLUS
Correction of: 1984:630070
DN 102:112972
Correction of: 101:230070
TI [[(Aminomethyl)aryl]oxy]acetic acid esters. A new class of high-ceiling diuretics. 2. Modifications of the oxyacetic side chain
AU Plattner, Jacob J.; Fung, Anthony K. L.; Smital, Jill R.; Lee, Cheuk Man; Crowley, Steven R.; Pernet, Andre G.; Bunnell, Paul R.; Buckner, Steven A.; Sennello, Lawrence T.
CS Pharm. Prod. Div., Abbott Lab., North Chicago, IL, 60064, USA
SO Journal of Medicinal Chemistry (1984), 27(12), 1587-96
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
GI



I



II

AB Aminomethyl derivs. of Et [2,3-dichloro-4-(4-hydroxybenzoyl)phenoxy]acetat e with modified oxyacetic acid side chains were prepared Thus, the benzoylphenoxyacetate I (R = CO2Et) was converted to I (R = CONH2, CH2NH2, CH2CN). Systematic alteration of the oxyacetic acid side chain has shown that the carboxylic acid function is the active species in vivo and that the Et ester group serves as a prodrug to enhance oral absorption. Side-chain functional groups that are incapable of **generating** the carboxylic **acid** in vivo failed to impart diuretic activity to the target compds. Addnl. side-chain modifications including homologation, Me substitution, and heteroatom replacement are also described. Ring annulation of the oxyacetic side chain to a dihydrobenzofuran-2-carboxylic acid produced II, which displayed the highest level of saluretic activity for this series.

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 1, 27

ST phenoxyacetate aminomethylhydroxybenzoyldichloro prepn diuretic; aminomethylhydroxybenzoyldichlorophenoxyacetate deriv prepn diuretic; benzofurancarboxylic acid prepn saluretic

IT Diuretics
([[(aminomethyl)aryl]oxy]acetic acid ester)

IT Molecular structure-biological activity relationship
(diuretic, of [[(aminomethyl)aryl]oxy]acetate derivative)

IT 100-07-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation by, of dichloroanisole)

IT 1984-59-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, by methoxybenzoyl chloride)

IT 62717-20-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, with nitrobenzoyl chloride)

IT 867-13-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with dichloro(nitrophenoxy)acetaldehyde)

IT 7440-23-5, biological studies
RL: BIOL (Biological study)
(excretion of, by kidney, benzoylphenoxyacetate effect on)

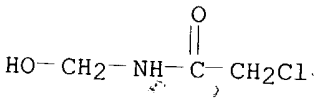
IT 16861-22-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(ketalization with ethylene glycol)

IT 85297-76-3P 92285-19-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amidation of)
IT 78235-20-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amidomethylation of)
IT 85297-69-4P 87181-50-8P 90246-55-2P 92285-24-0P 92285-27-3P
92285-30-8P 92285-36-4P 92285-40-0P 92285-46-6P 92314-28-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and aminomethylation of)
IT 92285-37-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorination of)
IT 87181-38-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and condensation with tri-Me phosphonylacetate)
IT 92314-29-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion to free base)
IT 92285-43-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion to hydroxyphenoxy derivative)
IT 92285-61-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and de-tert-butoxycarbonylation of)
IT 85297-75-2P 92285-20-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydration of)
IT 83119-48-6P 92285-26-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and demethylation of)
IT 87181-49-5P 92285-35-3P 92285-49-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and diazotization-hydrolysis of)
IT 78235-51-5P 82241-45-0P 82241-66-5P 85297-71-8P 85297-78-5P
87181-44-0P 87181-52-0P 92285-25-1P 92285-31-9P 92285-32-0P
92285-33-1P 92285-38-6P 92285-41-1P 92285-44-4P 92285-47-7P
92285-56-8P 92285-57-9P 92285-58-0P 92285-59-1P 92285-60-4P
92285-63-7P 92285-64-8P 92285-65-9P 92285-66-0P 92285-68-2P
92285-69-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and diuretic activity of)
IT 92285-50-2P 92285-51-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and esterification of)
IT 87181-47-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ethanolysis of)

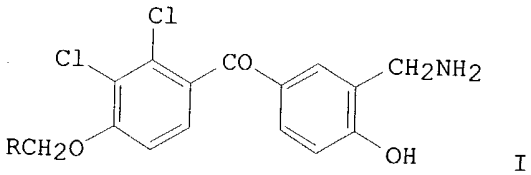
IT 85297-77-4P 87181-40-6P 87181-48-4P 92285-55-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)
IT 85297-70-7P 92285-21-7P 92285-62-6P 92285-67-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
IT 92285-53-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and methylation of)
IT 92285-45-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with Et bromobutyrate)
IT 78235-18-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with Et bromopropionate)
IT 90246-58-5P 92285-29-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with acetaldoxime, hydroxybenzoyl derivative from)
IT 92285-34-2P 92285-42-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with chloronitrobenzene)
IT 92285-48-8P 92285-54-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with cyanide)
IT 92285-28-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with trichloromethylpropanol)
IT 92285-39-7P 92285-52-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
IT 92285-22-8P 92285-23-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 13139-17-8 24424-99-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (aminomethylbenzoyl)phenoxyacetic acid derivative)
IT 78235-46-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (benzyloxycarbonyloxy)acetamide)
IT 57-15-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (dichlorohydroxyphenyl)(nitrophenyl)methanol)
IT 535-11-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (methoxybenzoyl)dichlorophenol)
IT 100-39-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Et (hydroxyphenoxy)dichlorophenoxyacetate)
IT 83119-51-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Et bromoacetate)
IT **2832-19-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with [dichloro(hydroxyethoxy)phenoxy](hydroxyphenyl)ethanol)
IT 87181-15-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzyl bromide3)
IT 78697-41-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bromoethanol and bromoacetone)
IT 2969-81-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dichloro[(benzyloxy)phenoxy]phenol)
IT 122-04-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dichloroanisole, and acylation of dichlorodihydrobenzofurancarboxylate)
IT 350-46-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dichlorohydroxybenzaldehyde ethylene acetal)
IT 105-36-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethoxydichlorothiophenol)
IT 78235-52-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tert-Bu dicarbonate)
IT 540-51-2 598-31-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of,m with (hydroxybenzoyl)dichlorophenol)
IT **2832-19-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with [dichloro(hydroxyethoxy)phenoxy](hydroxyphenyl)ethanol)
RN 2832-19-1 HCAPLUS
CN Acetamide, 2-chloro-N-(hydroxymethyl)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

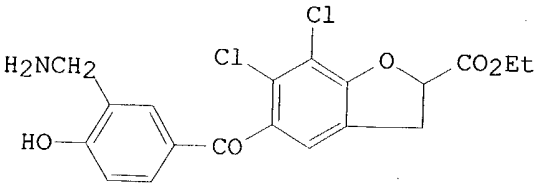


L14 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1984:630070 HCAPLUS
DN 101:230070
TI [[(Aminomethyl)aryl]oxy]acetic acid esters. A new class of high-ceiling diuretics. 2. Modifications of the oxyacetic side chain
AU Plattner, Jacob J.; Fung, Anthony K. L.; Smital, Jill R.; Lee, Cheuk Man; Crowley, Steven R.; Pernet, Andre G.; Bunnell, Paul R.; Martin, Yvonne C.; Buckner, Steven A.; Sennello, Lawrence T.
CS Pharm. Prod. Div., Abbott Lab., North Chicago, IL, 60064, USA
SO Journal of Medicinal Chemistry (1984), 27(12), 1587-96
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English

OS CASREACT 101:230070
GI



I



II

AB Aminomethyl derivs. of Et [2,3-dichloro-4-(4-hydroxybenzoyl)phenoxy]acetat e with modified oxyacetic acid side chains were prepared Thus, the benzoylphenoxyacetate I (R = CO2Et) was converted to I (R = CONH2, CH2NH2, CH2CN). Systematic alteration of the oxyacetic acid side chain has shown that the carboxylic acid function is the active species in vivo and that the Et ester group serves as a prodrug to enhance oral absorption. Side-chain functional groups that are incapable of **generating** the carboxylic **acid** in vivo failed to impart diuretic activity to the target compds. Addnl. side-chain modifications including homologation, Me substitution, and heteroatom replacement are also described. Ring annulation of the oxyacetic side chain to a dihydrobenzofuran-2-carboxylic acid produced II, which displayed the highest level of saluretic activity for this series.

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 1, 27

ST phenoxyacetate aminomethylhydroxybenzoyldichloro prepn diuretic; aminomethylhydroxybenzoyldichlorophenoxyacetate deriv prepn diuretic; benzofurancarboxylic acid prepn saluretic

IT Diuretics
([[(aminomethyl)aryl]oxy]acetic acid ester)

IT Molecular structure-biological activity relationship
(diuretic, of [[(aminomethyl)aryl]oxy]acetate derivative)

IT 100-07-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation by, of dichloroanisole)

IT 1984-59-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, by methoxybenzoyl chloride)

IT 62717-20-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of, with nitrobenzoyl chloride)

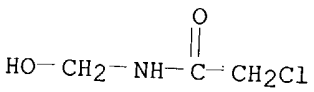
IT 867-13-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with dichloro(nitrophenoxy)acetaldehyde)

IT 7440-23-5, biological studies
RL: BIOL (Biological study)

(excretion of, by kidney, benzoylphenoxyacetate effect on)
IT 16861-22-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(ketalization with ethylene glycol)
IT 85297-76-3P 92285-19-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amidation of)
IT 78235-20-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amidomethylation of)
IT 85297-69-4P 87181-50-8P 90246-55-2P 92285-24-0P 92285-27-3P
92285-30-8P 92285-36-4P 92285-40-0P 92285-46-6P 92314-28-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and aminomethylation of)
IT 92285-37-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorination of)
IT 87181-38-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and condensation with tri-Me phosphonylacetate)
IT 92314-29-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion to free base)
IT 92285-43-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion to hydroxyphenoxy derivative)
IT 92285-61-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and de-tert-butoxycarbonylation of)
IT 85297-75-2P 92285-20-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydration of)
IT 83119-48-6P 92285-26-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and demethylation of)
IT 87181-49-5P 92285-35-3P 92285-49-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and diazotization-hydrolysis of)
IT 78235-51-5P 82241-45-0P 82241-66-5P 85297-71-8P 85297-78-5P
87181-44-0P 87181-52-0P 92285-25-1P 92285-31-9P 92285-32-0P
92285-33-1P 92285-38-6P 92285-41-1P 92285-44-4P 92285-47-7P
92285-56-8P 92285-57-9P 92285-58-0P 92285-59-1P 92285-60-4P
92285-63-7P 92285-64-8P 92285-65-9P 92285-66-0P 92285-68-2P
92285-69-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and diuretic activity of)
IT 92285-50-2P 92285-51-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and esterification of)
IT 87181-47-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ethanolysis of)
IT 85297-77-4P 87181-40-6P 87181-48-4P 92285-55-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)
IT 85297-70-7P 92285-21-7P 92285-62-6P 92285-67-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
IT 92285-53-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and methylation of)
IT 92285-45-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with Et bromobutyrate)
IT 78235-18-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with Et bromopropionate)
IT 90246-58-5P 92285-29-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with acetaldoxime, hydroxybenzoyl derivative from)
IT 92285-34-2P 92285-42-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with chloronitrobenzene)
IT 92285-48-8P 92285-54-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with cyanide)
IT 92285-28-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with trichloromethylpropanol)
IT 92285-39-7P 92285-52-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
IT 92285-22-8P 92285-23-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 13139-17-8 24424-99-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (aminomethylbenzoyl)phenoxyacetic acid derivative)
IT 78235-46-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (benzyloxycarbonyloxy)acetamide)
IT 57-15-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (dichlorohydroxyphenyl)(nitrophenyl)methanol)
IT 540-51-2 598-31-2
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with (hydroxybenzoyl)dichlorophenol)
IT 535-11-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (methoxybenzoyl)dichlorophenol)
IT 100-39-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Et (hydroxyphenoxy)dichlorophenoxyacetate)
IT 83119-51-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Et bromoacetate)
IT **2832-19-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with [dichloro(hydroxyethoxy)phenoxy](hydroxyphenyl)ethanol)
IT 87181-15-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzyl bromide)
IT 78697-41-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bromoethanol and bromoacetone)
IT 2969-81-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dichloro[(benzyloxy)phenoxy]phenol)
IT 122-04-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dichloroanisole, and acylation of dichlorodihydrobenzofurancarboxylate)
IT 350-46-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dichlorohydroxybenzaldehyde ethylene acetal)
IT 105-36-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethoxydichlorothiophenol)
IT 78235-52-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tert-Bu dicarbonate)
IT **2832-19-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with [dichloro(hydroxyethoxy)phenoxy](hydroxyphenyl)ethanol)
RN 2832-19-1 HCAPLUS
CN Acetamide, 2-chloro-N-(hydroxymethyl)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



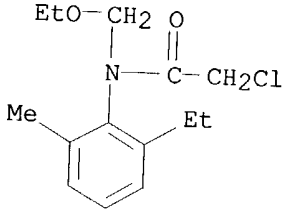
L14 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1981:147556 HCAPLUS
DN 94:147556
TI Alkylating nitrogen **acids** using **electrogenerated** bases as catalysts
IN Goodin, Richard D.; Hallcher, Richard C.; Baizer, Manuel M.
PA Monsanto Co., USA
SO U.S., 6 pp.

CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

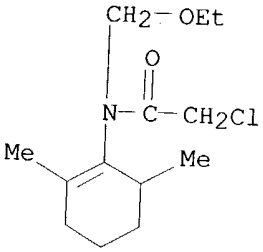
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4248678	A	19810203	US 1979-84940	19791015
PRAI	US 1979-84940		19791015		

AB This is a process for alkylating N acids, acetamides and acetanilides using an alkylating agent and an electrogenerated base. A cell with 3 compartments: anode, cathode, and buffer, and having C anodes and Pt cathodes was used in a N-flushed dry box. Into the cathode compartment was put 70 mL of 0.1M Me4NClO4 (dry Me2CO), N-(2,6-dimethyl-1-cyclohexen-1-yl)-2-chloroacetamide 0.55, 2,2'-di-tert-butylazobenzene 0.20, and ClCH2OEt 0.16 g. The anode and buffer compartments were charged with 30 and 20 mL resp. of 0.1M Bu4NClO4 (dry Me2CO). After electrolysis, MeCN was removed under reduced pressure and the product, N-(2,6-dimethyl-1-cyclohexen-1-yl)-N-(ethoxymethyl)-2-chloroacetamide, was isolated and characterized by chromatog. and NMR to show .apprx.40% conversion at 82% current efficiency.

IC C25B003-00
NCL 204059000R
CC 72-8 (Electrochemistry)
Section cross-reference(s): 23, 25
ST electrochem alkylation acetamide acetanilide acid; nitrogen acid electrochem alkylation
IT Alkylation
(electrochem., of nitrogen acids)
IT 1131-01-7 24766-77-6 32428-71-0 77117-42-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation of, electrochem.)
IT 21367-80-6 55446-38-3
RL: PRP (Properties)
(in electrochem. alkylation, of nitrogen acids)
IT 830-52-4P **34256-82-1P** 39086-72-1P **77117-40-9P**
77117-41-0P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of, by electrochem. alkylation)
IT **34256-82-1P 77117-40-9P**
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of, by electrochem. alkylation)
RN 34256-82-1 HCAPLUS
CN Acetamide, 2-chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)- (9CI) (CA INDEX NAME)



RN 77117-40-9 HCAPLUS
CN Acetamide, 2-chloro-N-(2,6-dimethyl-1-cyclohexen-1-yl)-N-(ethoxymethyl)- (9CI) (CA INDEX NAME)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